# The Oil and Gas Journal

PRODUCING REFINING MARKETING

VOL. 23. NO. 45 TULSA, OKLAHOMA, APRIL 2, 1925


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# Light Oil Drops 102,685 Bbls. 10 Weeks

**Average daily production in United States week ended March 28, 1,951,630 bbls. Gain from previous week, 11,367 bbls.**

## Production of Gasoline Content Crude Shows Big Decline. Heavy Gravity Oil Output Increases 56,270 Bbls.

**Highest daily average estimated production this year, week ended January 17, 1,998,045 bbls. Lowest January 3, 1,911,730 bbls.**

By Andrew M. Rowley

If the Federal Oil Conservation Board were to ask every oil man in the country why the feeling regarding the crude petroleum situation may change almost overnight without any apparent change in the basic conditions affecting the industry, it might obtain data which would help to explain the feeling of uncertainty which has existed in certain quarters and among a number of oil men recently. Leaders of the industry and others in close touch with the situation have stated time after time there is not a cloud on the horizon and yet when one oil man meets another almost the first question asked is, "What do you think of the crude situation?"

A study of crude oil production figures indicates there is every reason for optimism on the part of oil men, especially in the Mid-Continent area. The highest estimated daily average crude oil production in the United States so far this year was recorded during the week ending January 17 when the output for the entire country averaged 1,998,045 barrels. During that week the production of the Mid-Continent area averaged 1,091,400 barrels. The production of last week averaged 46,415 barrels daily less than during the week ending January 17 while the output of the Mid-Continent averaged 79,470 barrels daily less. The lowest estimated production so far this year was shown during the week ending January 3 when the output of the whole country averaged 1,911,730 barrels and the Mid-Continent, 1,011,680 barrels. Consequently, production of the Mid-Continent area last week was practically the same as during the period of lowest production for the whole country so far this year.

The one important feature of crude oil production figures, however, is the increase and decrease in the output of light and heavy oils. Many oil men are prone to consider totals without analyzing the figures. There has been a decline of 102,685 barrels a day in the production of light oil in the United States since the week ending January 17. During that same period the output of heavy gravity oil, or oil containing little or no gasoline content, has increased 56,270 barrels a day.

Crude oil price changes hinge largely upon the production of crude from which gasoline is manufactured. When the production of this kind of crude has decreased more than 100,000 barrels a day in 10 weeks, it is difficult to understand why so many persons should be pessimistic regarding the crude petroleum situation. The following table shows the daily average decrease in the production of light oil since January 17 and the increase in the output of heavy oil in the same period:

### LIGHT OIL PRODUCTION

| Field— | Decrease | Increase |
|---|---|---|
| Oklahoma | 22,970 | ..... |
| Kansas | ..... | 2,720 |
| North Texas | ..... | 16,070 |
| East Central Texas | 88,863 | ..... |
| Eastern Fields | ..... | 2,000 |
| Southwest Texas | 2,385 | ..... |
| Louisiana | ..... | 1,543 |
| Rocky Mountain Area | ..... | 8,200 |
| California | 19,000 | ..... |
| Totals | 133,218 | 30,533 |
| Net decrease | | 102,685 |

### PRODUCTION HEAVY OIL

| Field— | Increase |
|---|---|
| Gulf Coast | 30,240 |
| Arkansas | 12,030 |
| California | 14,000 |
| Total increase | 56,270 |

The Smackover Field in Arkansas is the center of interest at this time and estimates as to its possible production within the comparative near future range as high as 150,000 barrels. At the present time the production of the deep sand area from 23 wells is estimated at 28,000 barrels a day. There are more than 200 operations in the field, including wells drilling, rigs and locations. While many of the wells have been making considerable salt water, one completion this week flowing 95 per cent, operators in the field believe the wells making salt water were drilled too deeply and that the water is not as much a menace as the possibility of overproduction. It must be considered in connection with this deep sand production that the oil has a gasoline content of only about 4 per cent and is valuable chiefly for fuel oil. Of course a greater gasoline recovery can be obtained by cracking but it is said it is even quite difficult to crack.

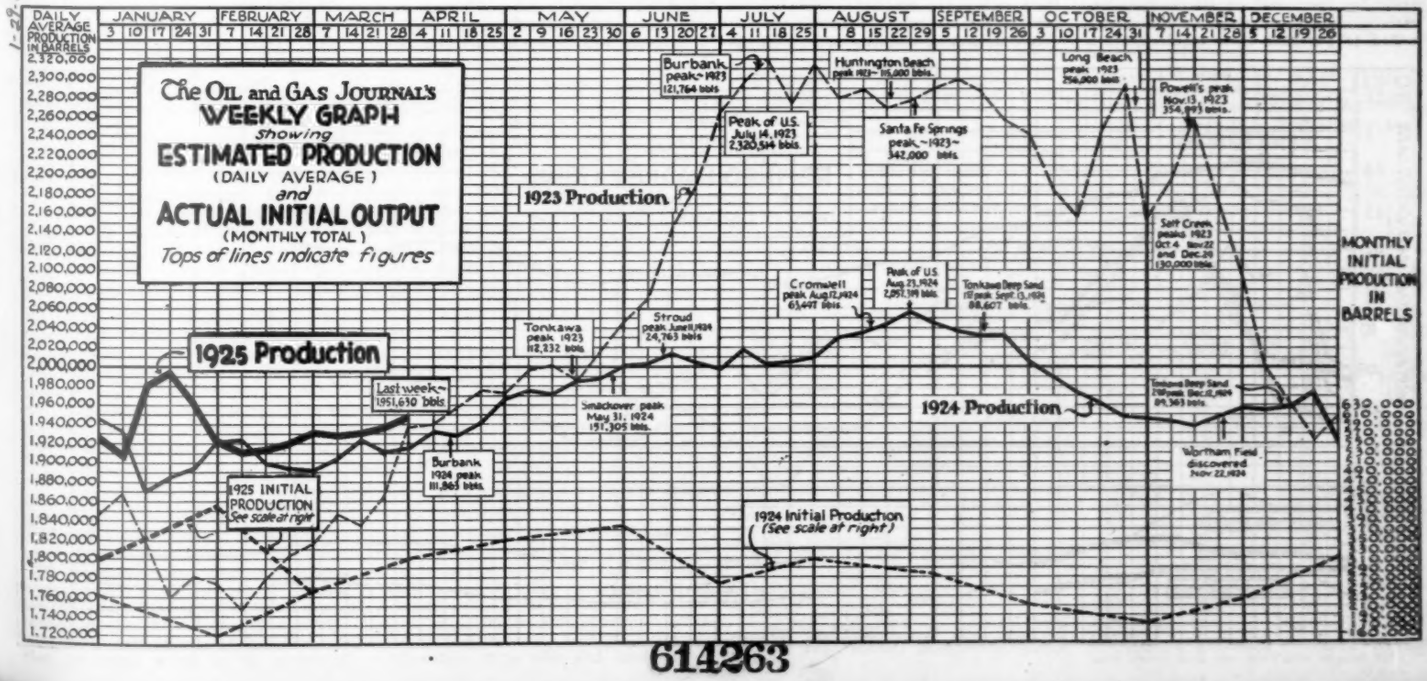
The Hull and South Liberty Pools in Liberty County, Texas, continue to be the center of interest in Coastal circles.

### PRODUCTION IN THE UNITED STATES

**Estimated daily average crude oil production in the United States for the week ended March 28, and a comparison with previous week follows:**

| | Mar. 28 | Mar. 21 |
|---|---|---|
| Oklahoma—Northern Fields: | | |
| Tonkawa | 78,320 | 73,015 |
| Burbank | 57,045 | 56,770 |
| Other Osage Fields | 35,155 | 35,865 |
| Cushing and Shamrock | 22,260 | 22,540 |
| Bristow and Eastern Bristow | 33,915 | 33,495 |
| Cromwell | 31,960 | 30,340 |
| Papoose | 29,115 | 28,210 |
| Northern Miscellaneous | 102,230 | 101,620 |
| Southern Fields | 63,545 | 64,050 |
| Total Oklahoma | 453,545 | 445,905 |
| Northern Louisiana | 50,958 | 50,325 |
| Arkansas— | | |
| El Dorado and Calion | 9,280 | 9,290 |
| Smackover Light | 31,715 | 31,865 |
| Smackover Heavy | 72,120 | 73,205 |
| Stephens and Nevada | 3,440 | 3,615 |
| Total Arkansas | 116,555 | 117,975 |
| North Central Texas | 145,550 | 143,623 |
| Powell | 54,615 | 56,850 |
| Mexia, Currie, Richland, etc. | 31,637 | 32,130 |
| Wortham | 73,700 | 77,600 |
| Kansas | 85,370 | 84,535 |
| Total Mid-Continent Area | 1,011,930 | 1,008,943 |
| Gulf Coast | 103,975 | 96,785 |
| Southwest Texas | 42,905 | 42,410 |
| Eastern | 102,200 | 100,450 |
| Rocky Mountain Area | 90,620 | 90,175 |
| California— | | |
| Santa Fe Springs | 49,000 | 49,000 |
| Long Beach | 116,000 | 115,000 |
| Huntington Beach | 41,000 | 40,500 |
| Torrance | 39,000 | 40,000 |
| Dominguez | 49,000 | 50,000 |
| Remainder of State | 306,000 | 307,000 |
| Total California | 600,000 | 601,500 |
| Total United States | 1,951,630 | 1,940,263 |

→ Increase, 11,367 Barrels ←

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# No Change in U. S. Motor Gasoline

## Substantial Buying Latter Part of March Prevents Declines in Principal Motor Grade. Kerosenes Lower. April Outlook Uncertain

By C. O. Willson

A better movement of refined products from the Mid-Continent area the last few days of March brought a slightly stronger market tone to several products in Oklahoma (Group 3). The greater movement was partially due to the fact that toward the end of the month buyers ordered out the remainder of their purchases bought earlier in the month. There were also more new orders placed with the refiners. This applies especially to 58-60 U. S. Motor gasoline, the principal domestic grade. The Standard Oil Co. of Indiana purchases of this grade exceeded 300 cars the last week of the month and in addition there was more activity on the part of the smaller buyers. Warmer weather throughout the Middle West is a factor which has forced many jobbers into the market for both immediate and future shipments.

There was also considerable "clean-up" buying at the end of the month in fuel oils and kerosene. Buyers who ordinarily buy regularly each week had been staying out of the market as long as possible earlier in the month in expectation of lower prices bought in sufficient volume during the past week to take care of all the spot business many refiners had to offer. As regards kerosene there has been some improvement in the actual consumption. This statement is verified by reports from jobbers and refiners who have their own retail stations. In the agricultural sections farm work is under way and kerosene is in demand for tractors and other power uses.

Although the demand improved for kerosene, sellers had too much material to offer to make possible a stiffening in prices, quotations being one-eighth to one-quarter-cent lower than last week. Spot fuel prices held fairly firm over the week. Natural gasoline prices continued to slip, the decline for the week being one-half to three-quarters cent. Blend prices held as firm as the U. S. Motor grade. There were no changes in lubricants. The wax market was inactive and prices are lower.

### April Outlook

Although the additional buying the latter part of March was encouraging to the refiners, April opens with the price trend for the month in all products uncertain. Many buyers who are accustomed to purchase their requirements a month ahead have not placed their April business. Some feel that generally lower prices are inevitable while others state market conditions are so unsettled they prefer to place their purchases from week to week. Sellers, on the other hand, have been willing to quote practically all products for April delivery at prices in line with the present spot market or lower.

Market observers state there is nothing definite on which to hinge a definite prediction at this time. Taking into consideration the pessimistic atttude of many refiners, they believe considerably more buying than is not apparent will have to come into the market to give these sellers the confidence necessary to prevent further price declines.

A considerable quantity of fuel oil has been sold for April delivery. Many sales were placed at $1.05 for grades between 20 and 26 degrees gravity with the minimum sulphur content. Sales have been reported under this price but a check-up of these sales shows they were for the lower gravities. The keen competition of coal, a slow-up in the demand from the industries, and the large stocks and current output do not point to any advances in fuel oil prices during the month The general attitude of the trade in fact seems to be that prices for the grades below 26 gravity will slump to $1 before the end of the month.

One encouraging development was the decision of certain railroad buyers to allow the Oklahoma refiners to ship the maximum requirements on their long-time contract. These contracts provide for minimum and maximum shipments and when the spot market is below the contract price, the buyers many times in the past have naturally taken the minimum on their contracts and purchased the balance of their requirements in the open market. These contracts are now netting the refiners from 30 to 40 cents above the spot market, a difference which is making it possible for several refiners to operate without large losses.

Gas oil and fuel distillates will probably follow any changes in the fuel oil market. The distillate season is ended and the routine business of the next few months will be placed at price determined by fuel oil and kerosene quotations.

### April Gasoline

The prase "it is anybody's guess" summarizes the opinion expressed by representative market observers regarding April gasoline. The favorable factor of increased gasoline consumption has been previously mentioned. There is no general complaint from the retailers regarding the volume of gasoline business which has shown the usual substantial increase over the same period last year. Government figures are not available for March and February but when they are announced they will no doubt show that gasoline consumption has done everything that could be expected to prevent the collapse in the refined market. Instances are known in certain sections of the Middle West where jobbers' sales per station so far this year have been from 35 to 50 per cent larger than last year. This was largely due to better weather conditions in those areas.

In regard to the supply it is certain there will be some reduction in crude runs to stills in the Mid-Continent area during April. At this writing the regular monthly refinery report of The Oil and Gas Journal for that area had not been completed. But the information so far obtained indicates a reduction in runs to stills which will probably not exceed 5 per cent. Further reductions will probably be made later in the month if market conditions do not improve and posted crude prices are not changed.

(Continued on Page 114)

### REFINED MARKET BAROMETER

Prices on the principal domestic grades of gasoline were steadier during the past week in practically all parts of the United States. Rush orders from wholesalers and retailers brought about by weather conditions more favorable for motoring than had been expected at this time of the year have given at least temporary aid to the gasoline price structure. This situation did not prevent declines in some grades of gasoline especially noticeable in areas dependent on an export demand to absorb the higher gravity gasolines. The reports on fuel and gas oil movement varied from sluggish to strong. Any price changes in these products during the week have been downward. Due to the soft refinery market, there is still little demand for natural gasolines and sellers who desire to move output are constantly compelled to lower their prices. Reports indicate an improved export and domestic demand for kerosene with no general price changes. Lubricants were generally slow during the week. No new wax business of importance developed.

**Mid-Continent**—Higher gravity gasolines lower in all areas. U. S. Motor gasoline held fairly firm in Oklahoma, North Texas and Kansas with lower prices prevailing in Arkansas and north Louisiana. Spot prices for fuel oil firm but quotations lower for April delivery. Gas oil slow and prices lower. Natural gasolines prices off ½ to ¾ cents. Kerosene prices lower except in Arkansas and north Louisiana. Wax prices lower. No change in lubricants.

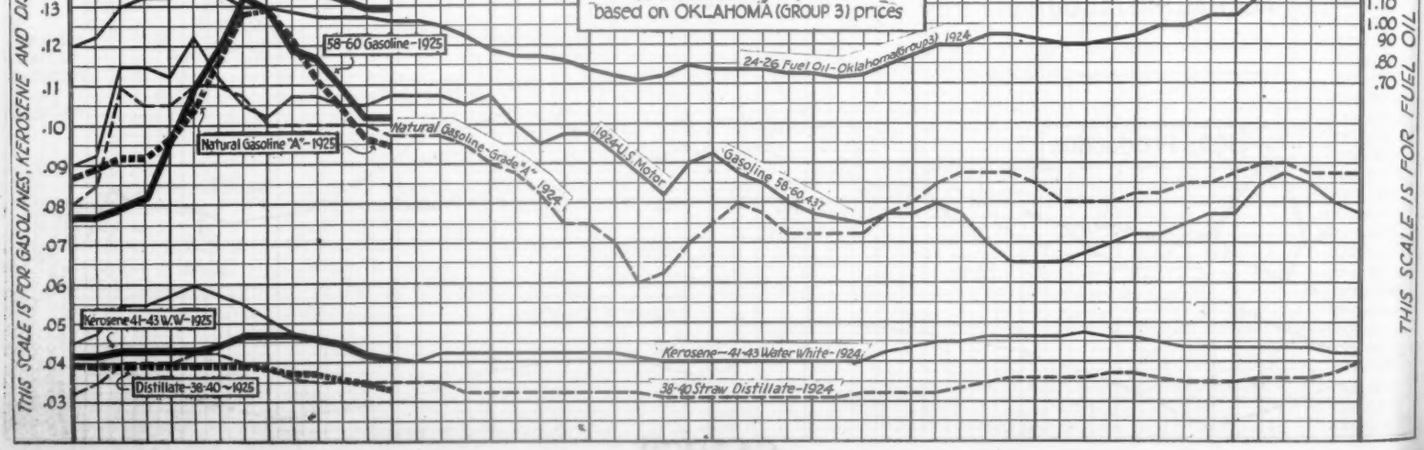
**Atlantic Seaboard**—Refinery gasoline prices lower. Gasoline consumption good and reductions in price believed temporary. Kerosene soft. Gas oil and fuel oil unchanged. Lubricants firm. Export market dull.

**Pennsylvania**—Gasoline prices lower despite better movement from refineries. Kerosene dull and prices lower. Cylinder stocks soft. No change in neutrals. Fuel oil slow.

**California**—Gasoline market including natural gasolines recovered part of the price decline of the previous week. Some grades of kerosene also slightly higher. No important changes in other products.

**Gulf Coast**—Scattered price reductions due largely to fear of crude reduction. Gas and fuel oil unchanged.

**Chicago**—Gasoline prices lower. Warmer weather aids demand. Light demand for kerosene. Fuel oil and gas oil quiet. No change in lubs.


CENTS PER GAL
JAN. FEB. MARCH APRIL MAY JUNE JULY AUG. SEPT OCT NOV DEC.
6 13 20 27 3 10 17 24 3 10 17 24 31 7 14 21 28 5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25 1 8 15 22 29 6 13 20 27 3 10 17 24 1 8 15 22 29
DOLLARS PER BBL.
THE OIL AND GAS JOURNAL'S WEEKLY CHART showing REFINED MARKET TREND as indicated by 5 products based on OKLAHOMA (GROUP 3) prices
24-26 Fuel Oil-1925
58-60 Gasoline-1925
Natural Gasoline "A"-1925
Kerosene 41-43 W.W.-1925
Distillate 38-40-1925
24-26 Fuel Oil-Oklahoma (Group 3) 1924
Natural Gasoline-Grade "A"-1924
1924 U.S. Motor Gasoline 58-60 43°
Kerosene-41-43 Water White-1924
38-40 Straw Distillate-1924
THIS SCALE IS FOR GASOLINES, KEROSENE AND DISTILLATE
THIS SCALE IS FOR FUEL OIL

# Reducing Exports Would Be Harmful

## Aside from Being Act of Confiscation it Would Destroy Market which Acts as Stabilizer of Domestic Conditions

By L. M. Fanning

The suggestion, which has come out of many petroleum investigations, that an embargo should be placed on the exportation of petroleum and its products as a means of effecting conservation of our oil resources has never been taken very seriously, but it is worth discussion in view of the fact that this is one of the phases being treated in connection with the investigation by the Federal Oil Conservation Board. The obvious anomalies to such a radical step are that:

(1) It is contrary to laws of world trade intercourse and would cause disorganization of the natural flow of products. It is opposite to the proved economic principle that foreign trade expansion is vital to an industry's stability and to the nation's prosperity.

(2) It is inconsistent with a favored policy for expansion of American companies' producing operations abroad.

(3) It would provoke retaliatory measures, which, in view of the vital qualities of petroleum, might have serious consequences to world peace.

### Ranks High in Exports

While other industries, strongly backed by government agencies, are doing all that they can to increase their foreign trade, we would have a discriminatory artificial restriction upon petroleum.

In dollar value, exports of petroleum and its products rank among the leading commodities shipped from this country. In 1924, during which year average oil prices were abnormally low due to overproduction, crude and refined oils were exported to the value of $418,000,000, ranking second among important commodity classifications made by the Bureau of Foreign and Domestic Commerce, only to cotton.

The value of principal exports in 1924 as shown by the bureau's report follows: Raw and manufactured cotton, $1,083,000,000; crude and refined oils, $418,000,000; wheat, $328,000,000; iron and steel, $221,000,000; tobacco, $185,000,000; animal and fish oils, $159,000,000.

These figures reveal the important relation petroleum bears to this country's favorable trade balance. The value of all exports from the United States in 1924 aggregated $4,498,000,000, petroleum exports amounting to 9 per cent of the total.

### Would Aid Competition

In addition to an embargo on exports being inconsistent with a policy favoring expansion of producing operations abroad by American companies, such action would obviously play into the hands of foreign petroleum combines.

It would amount to handing over the entire trade outside of this country to such companies, save for what small share American companies could save through their present or future acquired supplies in outside territories.

In view of the dependence of many foreign countries upon American oil, a forced shutdown of these supplies would work inestimable hardships pending the opening up of substitute sources of supply. American trade in these countries has been built up only after the hardest kind of pioneering and slow development and in many cases in the face of severe competition. It is conceivable that dependent countries would take a serious view of such a development.

The good will that has been built up by service would be destroyed over night.

Moreover the logical outgrowth of such a step, which would amount to paralyzing activities of American companies and would on the other hand give foreign companies tremendous advantages, is that the latter would in the course of time be pressing the former for trade in this country, necessitating some protective measures and a further building up of artificial restrictions detrimental to the normal functioning of the petroleum industry.

### Would Be Confiscation

Another aspect is: What would become of the investment in equipment maintained by American oil companies in their foreign operations; plants, tanks, docks, tankers, etc.? An embargo, even though not complete and intended to be only temporary, would be equivalent to confiscation unless some provision were to be made for recompense against loss of property or idle equipment.

Still another aspect is the effect upon the industry at home of a backing up of products whose normal outlet has been the export markets. While the bulk of our exports are in the hands of a few large companies there are some hundred companies manufacturing petroleum products for export. Many of these are small refineries which, without this trade, would be forced out of business.

Some recommendations for restriction of exports have concerned themselves only with gasoline. An embargo on the exportation of this single product would raise all the foregoing problems, the difference being only in the degree of severity.

Exports of gasoline in 1924 amounted to 1,219,000,000 gallons, or roundly 30,000,000 bbls., requiring in the manufacture some 100,000,000 bbls. of crude oil. The loss of an outlet for this amount of gasoline would involve the shutting down or scrapping of refinery capacity amounting to about 280,000 bbls. a day.

Of course the point of paramount interest is: Would an embargo on exports be an effective means of bringing about conservation of American petroleum reserves?

The answer cannot help but be negative if such a step must be at the expense of the petroleum industry of this country. It is conceded that demoralization of the industry is as intrinsically wasteful as flagrant waste as commonly understood. Overproduction, whether from natural causes or artificially induced through such means as an arbitrary shutting off of an outlet, is contrary to the principles of conservation.

As a matter of fact, while exports of petroleum products are an important contribution to this country's foreign trade, they are relatively small as compared with total production and supply, and their principal economic function is service as a safety valve in keeping a more even balance between supply and demand.

Exports of crude oil and all petroleum products have nearly tripled since 1913 but in 1913 the ratio to domestic crude oil production and imports was larger than in 1924. This is shown in the following table (figures in barrels):

| | Production and Imports | Exports All Oil | Percent Exports to Supply |
|---|---|---|---|
| 1913 | 261,059,000 | 47,376,000 | 18 |
| 1919 | 431,880,000 | 62,853,000 | 15 |
| 1920 | 552,196,000 | 77,993,000 | 15 |
| 1921 | 598,422,000 | 70,723,000 | 12 |
| 1922 | 687,144,000 | 72,873,000 | 11 |
| 1923 | 825,310,000 | 100,436,000 | 12 |
| 1924 | 811,535,000 | 110,992,000 | 13 |

### Industry More Stable

It is axiomatic that in normal times an industry with a large export trade is more stable than one more dependent on domestic markets, as frequently conditions affecting markets adversely at home may not obtain in foreign markets at the same time.

The actual story of the development of the export petroleum trade is one of providing a market for a surplus product.

The intensive character of petroleum development in this country, coupled with the fact that the United States is abundantly endowed with petroleum resources, has usually meant an adequate supply of oil for all domestic purposes with some oil to spare.

The very idiosyncracies of oil finding operate against the possibility of so regulating discovery and development that an exact balance between domestic supply and domestic consumption, for instance, could be maintained.

Fortunately for this country's industrial and automobile development, the petroleum industry has been able to go forward and find the oil with the knowledge that if more oil were found than could be disposed of in home markets, the chance remained of disposing of the surplus abroad.

### Foreign Markets Essential

Actually the production of crude oil has grown so rapidly that domestic markets for refined products were unable to keep pace, and opening up of foreign markets became an economic necessity, as in the case of kerosene; and to a lesser extent in the cases of gasoline and gas and fuel oil.

The domestic and foreign markets for petroleum, therefore, are fundamentally allied. A wiping out of one branch would demoralize the other, and in view of the fact that the foreign market is a direct result of a domestic surplusage, the interest from the conservation standpoint would seem to lie more in the methods that create the surplus than in the means of disposing of the surplus.

The oil industry has never gone out deliberately to produce oil so as to supply a big foreign demand; it has merely supplied that demand because it has had the oil and been forced to dispose of it.

The following table shows to what extent foreign markets are essential to give an adequate outlet to the leading petroleum products. It will be noted that exports in relation to production show no great gains in recent years as compared with former years, despite the fact that the volume has increased.

The World War created an abnormal export demand for gasoline and fuel oil, and it will be noted that in 1919, after the close of the war exports of these products backed up, and the effect was complete demoralization of the petroleum industry for a time until the export market revived to an extent to have a stabilizing influence.

The table shows the ratio of exports to production over the past few years (the year 1914 being used instead of 1913 because no production figures were compiled for the latter year):

| | Production Millions of Gallons | *Exports Millions of Gallons | Per Cent Exports to Production |
|---|---|---|---|
| **Gasoline** | | | |
| 1914 | 1,500 | 210 | 14 |
| 1918 | 3,570 | 569 | 16 |
| 1919 | 3,958 | 382 | 9 |
| 1920 | 4,883 | 657 | 13 |
| 1921 | 6,154 | 852 | 11 |
| 1922 | 6,202 | 596 | 10 |
| 1923 | 7,556 | 1,013 | 13 |
| 1924 | 8,960 | 1,219 | 14 |
| **Kerosene** | | | |
| 1914 | 1,935 | 1,010 | 52 |
| 1918 | 1,825 | 496 | 27 |
| 1919 | 2,342 | 989 | 42 |
| 1920 | 2,320 | 876 | 38 |
| 1921 | 1,945 | 757 | 39 |
| 1922 | 2,306 | 903 | 39 |
| 1923 | 2,349 | 856 | 36 |
| 1924 | 2,521 | 919 | 37 |
| **Gas and Fuel Oil** | | | |
| 1914 | 3,734 | 703 | 19 |
| 1918 | 7,221 | 1,245 | 17 |
| 1919 | 7,627 | 692 | 9 |
| 1920 | 8,861 | 927 | 10 |
| 1921 | 9,664 | 953 | 10 |
| 1922 | 10,706 | 776 | 7 |
| 1923 | 12,074 | 1,462 | 12 |
| 1924 | 13,460 | 1,562 | 12 |
| **Lubricating Oils** | | | |
| 1914 | 517 | 192 | 37 |
| 1918 | 841 | 259 | 31 |
| 1919 | 847 | 277 | 33 |
| 1920 | 1,047 | 405 | 39 |
| 1921 | 878 | 291 | 33 |
| 1922 | 979 | 333 | 34 |
| 1923 | 1,097 | 352 | 32 |
| 1924 | 1,165 | 383 | 33 |

*Including shipments to Alaska, Hawaii and Porto Rico for all years except 1914.

## CALIFORNIA PETROLEUM REFINERY STATISTICS FOR FEBRUARY, 1925

*Compiled by U. S. Bureau of Mines*

There were 42 refineries which reported to the United States Bureau of Mines as operating during the month of February, with an aggregate daily indicated capacity of 600,220 bbls. of crude oil. These plants were operating at 69.2 per cent of their capacity, running to stills a daily average of 415,338 bbls. of crude oil.

Gasoline—The production of gasoline during the month of February amounted to 116,416,443 gallons, a daily average of 4,157,730 gallons. This is a decrease of 5,722,146 gallons under January output. Compared to the production in February, 1924, an increase of 10,330,038 gallons is noted. Stocks of gasoline increased 11,479,797 gallons and on February 28 amounted to 341,543,854 gallons. Of the gasoline produced 101,079,444 gallons were from straight run, 836,708 gallons from cracking and 8,596,918 gallons from natural-gas gasoline. Production of engine distillate decreased 1,886,308 gallons, there being 1,751,469 gallons produced. Stocks decreased 1,043,740 gallons and at the close of the month aggregated 7,053,458 gallons.

Kerosene—The production of kerosene amounted to 22,330,146 gallons, which is a decrease of 3,814,576 gallons under January output. Stocks at the end of February were 55,614,163 gallons, an increase of 1,576,716 gallons over January stocks.

Gas Oils, Fuel Oils and Residuum—The production of these oils amounted to 332,843,442 gallons, a decrease of 52,906,603 gallons under January output. Stocks on February 28 were 843,232,608 gallons, a decrease of 2,602,148 gallons under January stocks.

Lubricants—The output of lubricants during February was 7,802,734 gallons, a decrease of 1,987,943 gallons under January production. Stocks decreased 889,982 gallons during February and at the close of the month amounted to 22,032,127 gallons.

| Commodity— | Oils Run to Stills Bbls. | Stocks End of Month Bbls. |
|---|---|---|
| Crude | 11,629,458 | 10,723,996 |
| Unfinished oils rerun | 958,749 | 3,013,391 |
| Natural - gas gasoline run to stills or blended at refinery | 310,004 | |
| Tops from below | | 6,209,641 |
| Total in barrels of 42 gallons | 12,898,211 | 19,947,028 |

| Commodity— | Refinery Output | Stocks End of Month |
|---|---|---|
| Gasoline, gals. | 116,416,443 | 341,543,854 |
| Engine distillates, gal. | 1,751,469 | 7,053,458 |
| Kerosene, gals. | 22,330,146 | 55,614,163 |
| Gas oils, fuel oils and residuum, gals | 332,843,442 | 843,232,608 |
| Lubricants, gals. | 7,802,734 | 22,032,127 |
| Wax, lbs. | | 13,670 |
| Asphalt, tons | 24,991 | 13,595 |
| All other finished products, gals. | 5,452,582 | 548,400 |
| Tops, gals. | 32,829,428 | 260,804,926 |
| Unfinished oils produced (other than tops, gals. | 10,164,885 | |
| Refinery losses, bbls. | 149,997 | |

Gasoline production in gallons from straight run, 101,079,444; from cracking, 836,708; from natural gas-gasoline, 8,596,918.

# Anthracite Operators Fight Fuel Oil

## Bureaus and Service Stations Established in Campaign to Push Sales of Coal. Have Traveling Show

By L. M. Fanning

The Anthracite Operators' Conference, with headquarters in Philadelphia, is actively campaigning to discredit fuel oil. The Anthracite Bureau of Information has been established with branches in many cities and this is regularly distributing to the public, information favorable to the burning of anthracite and of an opposite tenor as regads fuel oil. Distribution is also being handled through individual furnace manufacturers and coal dealers. The radio is also being used.

By authority of the Anthracite Operators Conference a bulletin is being published weekly called "The Burning Question." A feature of this bulletin is the publication of information concerning fires which are charged up as due to oil burners. In its issue of January 22, the bulletin publishes news items on fires under the following introductory paragraph: "The December issue of this publication contained some representative newspaper accounts of fires caused by the use of oil for heating, as these were reported in the local papers. The following additional items, while only a few of those which have been reported, suggest the large annual losses of both life and property due to fires started by oil heaters."

**Information Bureaus**

The establishment of the branch information bureaus under the name of the Anthracite Economy Service is being widely advertised with suggestions that householders investigate their fuel questions and visit the bureaus. Recently Byron R. Newton spoke on the radio in New York City explaining the activities of these bureaus. He disqualified oil usage in the following manner:

"During the past year, millions of dollars have been spent in the effort to establish oil, gas and other substitute fuels for heating the homes of the country; but all this effort has had practically no appreciable effect on the anthracite industry; for the consumption of that fuel has shown no falling off, beyond what may be accounted for by the unseasonal weather during the autumn and early winter period.

"All this proves that while there is unquestionably a great deal of experimenting with other fuels, a great many of these experiments are found to be too expensive or in other ways unsatisfactory; that the experimenters are returning to anthracite, and that of the thousands of new homes built each year, the greater number are being equipped to use the fuel that has been found to be the most economical and satisfactory after a test of more than 100 years."

**Service Stations**

The anthracite operators have established permanent service stations in the larger Eastern cities designed to attract consumers to aid them in getting information about their heating problems. These stations are now located in Washington, Philadelphia, Baltimore, New York and Boston.

The operators have also put a traveling show on the road which visits all the larger towns in the anthracite consuming territory and remains long enough in each locality to give the people a chance to visit it. This show opened in Buffalo on January 26 and has already visited Easton, Pa., Allentown, Pa., and Reading, Pa.

**Sample of Literature**

A typical piece of literature handed out by the Anthracite Economy Service follows:

"Which fuel shall we use for heating our home?

"Anthracite coal is the best and most economical fuel known. It has made millions of homes comfortable for nearly a hundred years.

"It is popular because it is a hard even-burning fuel. It gives off no undesirable odors, and no oily soot which mars the paint and draperies in the home and no objectionable smoke.

"Being a 'manufactured' product anthracite is washed and rewashed. It is clean and keeps things clean and holds down the family wash bill. And it is absolutely safe.

**"No Satisfactory Substitute for Anthracite**

"The wise home owner should think seriously before replacing clean, safe anthracite with any substitute.

"You should have some guarantee that the device for burning the substitute is fool proof and that it does not open up hazards which increase insurance and add considerable to the initial investment.

"Make assurance doubly sure—burn anthracite in your furnace. You can effect a big saving if you are using the proper sizes.

"Learn to heat your home economically; visit anthracite economy service."

The coal operators are also establishing at various offices experts to advise customers on heating problems. Large coal dealers in the Chicago territory have created the position of "combustion engineer" to answer customers inquiries and to advise customers to get the most out of their fuel. This system is being generally advocated.

Another sample of the literature which is being distributed and which bears the stamp of the expert, follows:

**"NEW ENGLAND ENGINEER DESCRIBES 'OIL TROUBLES'**

"Facts about oil, in connection with home heating, are discussed in a statement which has been prepared by Perry Barker, one of the leading fuel engineers in New England, and which is being given out to individuals and dealers.

"Some of the oil facts, as presented in the statement, follow:

**1. Danger**

"Deputy Chief Caulfield, of the Boston fire department, recently addressing the New England Fire Chiefs' Association, said: 'Regardless of the careful manufacture of oil-burning devices or how well safeguarded by supervision of the installation, they present a fire hazard.

'Sixty fires occurred in oBston during the last two heating seasons where oil-burner equipment was directly responsible.'

**2. Expense**

"Experience has shown that the cost of heating with furnace oil in many New England homes has been equivalent to a cost of heating with domestic-size anthracite coal at $21 to $23 per ton. The interest charge on the oil-burning equipment of better design and material, at 5 per cent per year, plus the depreciation, is the equivalent of approximately $3 for every ton of coal consumed.

**3. Soot**

"Oil is clean in the cellar until the burner clogs, or the supposedly automatic shut-offs fail to operate. Then the cellar and house are often filled with soot and smells. House furnishings have frequently been ruined by this smoke, which loss is not covered by fire insurance policies. Even the highest priced oil burner installations have not been free from this trouble.

**4. Fuel Cost**

"The furnace oil that is offered for house heating is much more valuable for certain industrial purposes. The constantly increasing demand for this grade of oil, with practically no increase in supply, is likely to mean higher prices.

**5. Equipment Unreliable**

"Most of the better types of oil burners require gas or electricity, or both, to operate the system. One day last winter over 1,400 oil burners were out of service for many hours, when the electric power in one of the largest New England cities was suddenly put out of commission. This was repeated many times during the winter in other cities and towns.

**6. Replacement**

"Cast iron furnaces and boilers designed for house heating are built to absorb heat slowly, from a large bed of solid fuel. Oil burners produce an intensive localized heat, which is often developed rapidly, causing excessive expansion and cracking the metal of the sections."

## SUPERIOR EFFICIENCY OF FUEL OIL WILL CHECK CONVERSION TO COAL

That many industrial plants along the Atlantic Seaboard and particularly in the New England district have returned to coal burning after using fuel oil as represented in the coal trade press and in coal propaganda being broadcast at this time, is denied by oil companies engaged in the fuel oil business in the territory mentioned. From best informed sources it is learned there have been relatively few conversions, but where superior efficiency of oil is not a real factor it is possible that, due to the fact of the depressed prices of coal, some further plants will go back to that fuel.

The particular factor now is not so much the loss of plants now burning oil as it is the difficulty of making new oil burning installations in competition with coal. Fuel oil has been strong and, broadly speaking, out of price competition with cheap grades of coal. Where a plant can operate on cheap coal, oil burner equipment salesmen have found it increasingly difficult to interest prospective customers in conversion. This also applies in the case of large burner installations in office buildings and public buildings at the present time. But it has not yet been demonstrated there will be any wholesale conversion back to coal on the part of present users of fuel oil.

One authority states that thus far the matter of conversion back to coal has been for the most part talk without action, although as coal prices decline it is inevitable in his mind that certain classes of industrial oil users will go back to coal. Steam coals are weak after several reductions. A factor which may develop and one which has an important bearng in a general way on the question of the use of oil as against coal is the possibility of a strike among nonunion bituminous mines in the Fairmont and Clarksburg district.

**Not Matter of Underselling**

From the angle of the oil companies the fact that they cannot undersell cheap coal is not only disturbing but is believed to be economically encouraging. The oil burner manufacturer, of course, has a diffferent view of the matter, as sales of his equipment are largely dependent upon the relative price of the two fuels with all factors of cost taken into consideration.

The matter of use of oil as against coal sifts down to the character of operations of the individual plant, its size and location. Industrial plants which have been using oil as a substitute for cheap coal on a ton for ton price basis while fuel oil has been cheap and which do not require in their operations the heat efficiencies provided by fuel oil are increasingly liable to go back to coal as the price of the latter declines with fuel oil holding steady at prevent levels.

Plants which have been using fuel oil for four or five years have long since paid for the cost of their installation. No great expense is involved in their conversion back to coal, and if low grade coal gets increasingly cheap, the oil companies look for further loss of this business. However, it is pointed out that in the future the plant which has once been equipped with oil burner apparatus and oil tankage can readily go back to oil when conditions warrant so that any loss of this business may be regarded as temporary.

In the matter of pushing fuel oil installations for industrial plants now using low grades of coal, a representatives of one of the oil companies states that the oil concerns under present conditions do not want any more of this business. In the case of his company he stated there is no need for more customers among plants of this type.

**Preferential Uses of Oil**

The situation is described as one of supplying the preferential uses for fuel oil in the industrial field. Many of the plants along the coast use fuel oil as an essential, and, according to authorities, there is no possibility of such plants going back to coal. These preferential users are necessarily forced to pay the price for fuel and are willing to pay with a result that it would again be available in competition with coal. In other words, until crude becomes in less supply than it is at the present time, there is

(Continued on Page 93)

## REED ROLLER BIT CO. ANNOUNCES PRICE CUT

An announcement of considerable importance to the oil industry has been made by the Reed Roller Bit Co., of Houston, Tex., which states: "Effective as of April 1, the Reed Roller Bit Co. announces a general reduction in the price of bits, reamers and spare parts.

The company, selling as it does through principal oil field supply stores everywhere, reports a largely increasing sale of its products in all fields.

### BIG WELL AT BLUE RIDGE

HOUSTON, Tex., March 31. — The Gulf Production Co.'s No. 10 Blakeley at Blue Ridge is reported flowing about 2,000 bbls. from a depth of 3,100 feet. The well marks an extension to the north and is producing from a deeper sand, the oil being Grade B crude.

### TEAPOT DECISION DELAYED

CHEYENNE, Wyo., March 28. — At the close of the Teapot Dome trial Judge Kennedy gave the attorneys 30 days to file briefs and stated he would have other matters pertaining to the court that would require his attention for a like period. It is therefore expected he will not go over the briefs before May 1, and will require about 30 days or more to digest the same. A decision is not expected here before the middle of June.

# Indiana Co. Closing Deal with Doheny

## Negotiations Concluded on Return of Col. R. W. Stewart from Inspection of Pan American Properties in Mexico

Unless there is a hitch during the last hours of the negotiations, The Oil and Gas Journal is informed, the Standard Oil Co. of Indiana and its associates will have the controlling stock of the Pan-American Petroleum & Transport Co. by the end of the week.

These negotiations have been on for months and it was confidently expected they would be closed by Wednesday. On March 27 the Pan American Eastern Petroleum Corp. was incorporated in Delaware with a capital of $25,000,000 preferred stock, par value $100 each and one million shares of common stock without par value.

This corporation, it is understood, has purchased more than 50 per cent of the voting stock of the Pan American Petroleum & Transport Co. from Edward L. Doheny and his family. The interests associated with the Standard Oil Co. of Indiana, it is understood, are Blair & Co., Chase National Bank and the British-Mexican Petroleum Co. These four interests no doubt will be represented on the board of directors. There will probably be three on the board representing the Standard of Indiana, one representing the Chase National Bank, one the British Mexican Petroleum Co. and two from Blair & Co.

It is understood Mr. Doheny will retire from active participation in the management of the reconstructed Pan American Petroleum & Transport Co. and give his entire attention to the Pan American Western Corp. and its California property.

The properties controlled by the Pan American Petroleum & Transport Co. revolve around its control of very large areas in the Mexican oil fields. On January 1, 1924, this company and its subsidiaries owned or held under lease about 1,380,000 acres in the Republic of Mexico. At that time they operated a fleet of 31 vessels with a carrying capacity of 1,800,000 bbls. It also owned at that time in Mexico 550 miles of pipe lines with a daily capacity of 130,000 bbls.

These oil fields have been undergoing such notable changes that the negotiations for the acquisition of the Doheny stock could not be closed until a new and care-

Col. Robert W. Stewart

ful field examination was made by Colonel Robert W. Stewart, chairman of the board of directors of the Indiana company; Fred H. Wickett, president of Dixie Oil Co., an independent subsidiary, and their technical associates, and these gentlemen were able to complete the examination and return to New York just barely in time to enable the parties interested to give notice to Mr. Doheny of the exercise of their option within the time limit placed thereon.

The transaction if finally consummated as now planned is the most important consolidation of major oil interests in recent years. It gives the Standard Oil Co. of Indiana ,the dominant Standard interest of the Middle West and Rocky Mountain areas, a seaboard outlet and will apparently place it in the first rank among oil companies having foreign interests and export outlets for their products.

Edward L. Doheny

The combined interests will have crude production, refining capacity and marketing facilities not exceeded by any combination of oil interests in the United States. It will especially strengthen the Indiana Standard's crude oil position, the phase of its operations which has been weakest in the past.

The present settled production of the Pan American interests in Mexico is approximately 160,000 bbls. daily, equally divided in light and heavy crude. Its Mexican position was recently strengthened by the bringing in, through a subsidiary company, of the No. 44 Tierra Blanca well, a discovery well in the light oil district with an initial production of 100,000 bbls. daily.

Pan American interests have a refinery with a topping capacity of 130,000 bbls. daily at Tampico. This plant, together with 25,000 skimming and asphalt plant located at Destrehan, La., would become a part of the eastern division. To this refinery capacity the Standard of Indiana and subsidiary interests would add approximately 160,000 bbls. daily through refineries located at Whiting, Ind., Wood River, Ill., Sugar Creek, Mo., Casper, Laramie and Greybull, Wyo., and Salt Lake City, Utah. This combined refining capacity of approximately 300,000 barrels daily does not include the 40,000-bbl. plant of the Pan American Petroleum Co. located at Watson, Calif. The latter plant would be a part of the western division if the proposed changes are carried out as would all the California interests of the Pan-American companies.

The Standard Oil Co. at the present time is the dominant marketing organization of 12 States of the Middle West. The marketing facilities of the Pan American interests have not kept pace with its crude and refinery development. Through subsidiary organizations, however, the company during the past two years had established a large number of bulk distributing stations in the Southwest, the Atlantic Seaboard and States adjoining. The company also has a large number of filling stations. The company has a large expansion program in its marketing facilities under way for 1925.

# Geological Survey Report for February, 1925

### PRODUCTION BY STATES

| State | January, 1925. a/ Total | January, 1925. a/ Daily Average | February, 1925 Total | February, 1925 Daily Average | Jan.-Feb. 1925 | Jan.-Feb. 1924 |
|---|---|---|---|---|---|---|
| Arkansas | 3,037,000 | 97,968 | 2,739,000 | 97,821 | 5,776,000 | 5,646,000 |
| California | 18,743,000 | 604,622 | 16,870,000 | 602,494 | 35,613,000 | 40,254,000 |
| Colorado | 58,000 | 1,871 | 53,000 | 1,893 | 111,000 | 13,200 |
| Illinois | 662,000 | 21,355 | 603,000 | 21,536 | 1,265,000 | 1,279,000 |
| Indiana: | | | | | | |
| Southwestern | 56,000 | 1,806 | 53,000 | 1,893 | 109,000 | 107,000 |
| Northeastern | 15,000 | 484 | 15,000 | 536 | 30,000 | 40,000 |
| Total Indiana | 71,000 | 2,290 | 68,000 | 2,429 | 139,000 | 147,000 |
| Kansas | 2,437,000 | 78,613 | 2,500,000 | 89,286 | 4,937,000 | 4,219,000 |
| Kentucky | 576,700 | 18,603 | 547,400 | 19,550 | 1,124,100 | 1,180,700 |
| Louisiana: | | | | | | |
| Gulf Coast | 215,000 | 6,936 | 187,000 | 6,679 | 402,000 | 353,000 |
| Rest of State | 1,446,000 | 46,645 | 1,308,000 | 46,714 | 2,754,000 | 2,949,000 |
| Total Louisiana | 1,661,000 | 53,581 | 1,495,000 | 53,393 | 3,156,000 | 3,302,000 |
| Montana | 236,000 | 7,613 | 219,000 | 7,821 | 455,000 | 292,000 |
| New Mexico | 14,000 | 452 | 10,000 | 357 | 24,000 | ..... |
| New York | 119,000 | 3,838 | 117,000 | 4,179 | 236,000 | 204,000 |
| Ohio: | | | | | | |
| Central & Eastern | 406,000 | 13,097 | 389,000 | 13,893 | 795,000 | 731,000 |
| Northwestern | 151,000 | 4,871 | 150,000 | 5,357 | 301,000 | 303,000 |
| Total Ohio | 557,000 | 17,968 | 539,000 | 19,250 | 1,096,000 | 1,034,000 |
| Oklahoma: | | | | | | |
| Osage County | 2,558,000 | 82,516 | 2,211,000 | 78,964 | 4,769,000 | 6,235,000 |
| Rest of State | 12,417,000 | 400,539 | 11,625,000 | 415,185 | 24,042,000 | 17,737,000 |
| Total Oklahoma | 14,975,000 | 483,055 | 13,836,000 | 494,149 | 28,811,000 | 23,972,000 |
| Pennsylvania | 605,000 | 19,516 | 583,000 | 20,821 | 1,188,000 | 1,120,000 |
| Tennessee | 300 | 10 | 600 | 21 | 900 | 1,300 |
| Texas: | | | | | | |
| Gulf Coast | 1,798,000 | 58,000 | 1,715,000 | 61,250 | 3,513,000 | 4,258,000 |
| Rest of State | 11,171,000 | 360,355 | 9,409,000 | 336,036 | 20,580,000 | 16,037,000 |
| Total Texas | 12,969,000 | 418,355 | 11,124,000 | 397,286 | 24,093,000 | 20,295,000 |
| West Virginia | 476,000 | 15,355 | 447,000 | 15,964 | 923,000 | 969,000 |
| Wyoming: | | | | | | |
| Salt Creek | 1,783,000 | 57,516 | 1,664,000 | 59,429 | 3,447,000 | 6,523,000 |
| Rest of State | 539,000 | 17,387 | 549,000 | 19,607 | 1,088,000 | 1,457,800 |
| Total Wyoming | 2,322,000 | 74,903 | 2,213,000 | 79,036 | 4,535,000 | 7,980,800 |
| Total | 59,519,000 | 1,919,968 | 53,964,000 | 1,927,286 | 113,483,000 | 111,909,000 |

### BY FIELDS

(Barrels of 42 U. S. Gallons)

| Field | January, 1925, a/ Total | January, 1925, a/ Daily Average | February, 1925 Total | February, 1925 Daily Average | Jan.-Feb. 1925 | Jan.-Feb. 1924 |
|---|---|---|---|---|---|---|
| Appalachian | 2,183,000 | 70,419 | 2,084,000 | 74,428 | 4,267,000 | 4,206,000 |
| Lima-Indiana | 166,000 | 5,355 | 165,000 | 5,893 | 331,000 | 343,000 |
| Illinois-S. W. Ind. | 718,000 | 23,161 | 656,000 | 23,429 | 1,374,000 | 1,386,000 |
| Mid-Continent | 33,066,000 | 1,066,636 | 29,792,000 | 1,064,006 | 62,858,000 | 52,823,000 |
| Gulf Coast | 2,013,000 | 64,936 | 1,902,000 | 67,929 | 3,915,000 | 4,611,000 |
| Rocky Mountain | 2,630,000 | 84,839 | 2,495,000 | 89,107 | 5,125,000 | 8,286,000 |
| California | 18,743,000 | 604,622 | 16,870,000 | 602,494 | 35,613,000 | 40,254,000 |
| Total | 59,519,000 | 1,919,968 | 53,964,000 | 1,927,286 | 113,483,000 | 111,909,000 |

a/ Revised.

### PIPE LINE AND TANK FARM STOCKS OF CRUDE PETROLEUM ON LAST DAY OF MONTH (Barrels)

(Stocks of domestic petroleum are reported by fields of origin, not by location of storage.)

| | | 1925a/ | 1925 | 1924 |
|---|---|---|---|---|
| East of California: | | | | |
| Appalachian: | | | | |
| New York, Pennsylvania, West Virginia, Eastern and Central Ohio: | Gross | 7,304,000 | 7,341,000 | 6,670,000 |
| | Net | 7,060,000 | 7,098,000 | 6,394,000 |
| Kentucky: | Gross | 2,394,000 | 2,450,000 | 2,853,000 |
| | Net | 2,272,000 | 2,333,000 | 2,731,000 |
| Lima-Indiana: | Gross | 1,397,000 | 1,407,000 | 1,193,000 |
| | Net | 1,183,000 | 1,190,000 | 987,000 |
| Illinois- S. W. Indiana: | Gross | 11,377,000 | 11,341,000 | 11,456,000 |
| | Net | 10,845,000 | 10,813,000 | 10,998,000 |
| Mid-Continent: | | | | |
| Oklahoma, Kansas, Central and North Texas: | Gross | 186,049,000 | 184,614,000 | 179,273,000 |
| | Net | 174,412,000 | 173,510,000 | 167,860,000 |
| Northern Louisiana and Arkansas: | Gross | 35,496,000 | 35,230,000 | 33,796,000 |
| | Net | 33,479,000 | 33,147,000 | 31,905,000 |
| Gulf Coast: | Gross | 19,556,000 | 19,210,000 | 24,015,000 |
| | Net | 19,203,000 | 18,949,000 | 23,596,000 |
| Rocky Mountain: | Gross | 28,809,000 | 28,961,000 | 22,883,000 |
| | Net | 28,786,000 | 28,939,000 | 22,859,000 |
| Total pipe line and tank farm stocks east of California: | Gross | 292,382,000 | 290,654,000 | 282,139,000 |
| | Net | 277,240,000 | 276,979,000 | 267,330,000 |
| California as stated above) | | 70,110,000 | 71,843,000 | 63,151,000 |
| Foreign crude petroleum held in the U. S. by importers elsewhere than at refineries b/: | | | | |
| At Atlantic coast stations | | 187,000 | 204,000 | 263,000 |
| At Gulf coast stations | | 406,000 | 320,000 | 1,013,000 |
| | | 593,000 | 524,000 | 1,276,000 |
| Total domestic net pipe line and tank farm stocks east of California; producers', pipe line and tank farm stocks in California and stocks of foreign crude petroleum held in the U. S. by importers elsewhere than at refineries | | 347,943,000 | 348,346,000 | 331,757,000 |
| Refinery stocks (Bureau of Mines): Domestic crude oil | | 29,164,000 | | 32,869,000 |

(Continued from Page 117)

# Over 800 Attend Geologists' Meeting

## American Association in Session Wichita, Kansas, Emphasizes Necessity for Cooperation and Research on Vital Problems

By C. D. Lockwood

**When Dr. John M. Clarke, State geologist of New York, asked in his address before the American Association of Petroleum Geologists at Wichita, Kans., last week whether the 9,000,000,000 cortical cells of our brains are not in danger of overstrain in the effort to digest the bewildering accumulations of knowledge brought together by the army of trained geological observers in American oil fields, he just about sized up the situation, especially from a layman's standpoint. The vast body of data presented to the members in attendance at the technical sessions of the convention was sufficient to make anyone but an experienced geologist dizzy, and yet throughout the dozens of papers reviewed at the meetings there was a definite message for the producer and layman as well as for the student of science. The vital need for cooperation in securing data from men in the field, including the wildcatter as well as the field geologist, and the imperative necessity for adequate research, were the fundamental problems overshadowing all others.**

**The tenth annual meeting of the association was remarkable in several respects. It was not only the greatest in point of attendance, exceeding the registration at last year's convention in Houston, Tex., by 132, counting active and associate members only, but the technical sessions were crowded at practically all times, and even on Saturday morning, after the annual banquet, vaudeville program and dance which lasted into the wee small hours of the morning, there were more than 300 listeners in the auditorium by 10 o'clock. Every speaker who presented a paper at the convention had an audience worthy of the large amount of time and effort spent in its preparation, and the big auditorium in the new Elks Hall was filled to capacity Thursday afternoon and Friday morning.**

**Out of a total membership of 1,253 in the national association, 438 active and associate members, or 35 per cent of the total, registered at headquarters in the Hotel Lassen. In addition to the members, the registration included 230 young geologists, most of whom applied for membership, and other visitors; and there were 154 wives of members listed, making 822 persons in all. More than 750 persons attended the annual banquet on Friday night, held in the banquet hall of the Forum. At this banquet W. C. Franklin, president of the Mid-Continent Oil & Gas Association, was the principal speaker.**

**E. DeGolyer of New York City, general** manager of the Amerada Petroleum Corp., was elected president of the association for the coming year to succeed James H. Gardner of Tulsa. Russell S. McFarland, superintendent of the land and geological department of the Twin State Oil Co., of Tulsa, was elected vice president to succeed E. G. Gaylord of San Francisco, Cal. Dr. C. E. Decker of Norman, Okla., was re-elected secretary-treasurer, and Raymond C. Moore, State geologist of Kansas, was also re-elected editor of the association bulletin

The place of the next meeting of the association was not decided by the executive committee although some of the prominent members expressed the opinion that it will probably go to Washington, D. C., Wichita Falls, Tex., or Tulsa. Each of these cities made a strong bid for the honor at the business meeting of the convention. Other invitations were also extended by Fort Worth, Tex., New York City, New Orleans, La., Tampico, Mex., and Mexico City. Previous to the convention, the secretary also received invitations from Cleveland, Ohio, and Niagara, N. Y.

A recommendation to hold a semi-annual meeting either in Washington, D. C., or New York City some time in the fall of 1926 for the purpose of considering problems of geology in foreign countries was included in the report of the general committee, read by Alexander Deussen, chairman, and will probably be adopted by the executive committee. A strong sentiment was expressed by several members at the business meeting in favor of making some arrangement that would permit the publication of papers at an earlier date than is now possible because of the size of the bulletin and the limited number of issues. Material is now on hand for two complete issues of the bulletin, according to Raymond C. Moore, editor, not including the 81 papers presented at this convention, hardly any of which can be published for several months.

E. DeGOLYER
General Manager Amerada Petroleum Corp., elected president.

—Photo by Rivkin
RUSSELL S. McFARLAND
Superintendent Land and Geological Department, Twin State Oil Co., elected vice president.

### Uncertainty Keynote

The keynote words of the technical sessions in some respects might be listed as "unhappily," "unfortunately," "probably," and other similar expressions. "Put quotation marks around that name," was an alibi not infrequently heard. Numerous speakers emphasized the maze of uncertainty that surrounds nearly every problem with which the geologist struggles, not only the purely scientific questions but also those dealing directly with the solution of the major problem which is the discovery of oil. Dr. Van der Gracht, in his paper on the "Probable Subsurface Structure of the High Plains of Western Texas," made an appeal to the wildcatter to help unravel the mysteries which veil this great region. "Every man who goes to the expense of drilling a wildcat," he said, "should exercise every possible care in cooperating with scientists who are devoting time and thought to the solution of problems throughout the Mid-Continent for unhappily very little concerning some primary problems is definitely known yet."

In spite of the great number of wells that have been drilled in various districts, it was brought out in several papers, little information of any value for scientific study has been preserved. The hearty and unstinted cooperation of all drillers and producers must be obtained, if some of the many problems which are vitally important to the industry as a whole are to be solved.

### Asks Aid in Research

The imperative need for cooperation in research was forcibly presented by W. E. Wrather, chairman of the committee on research, in his annual report, which said in part:

"The time has certainly arrived when geologists must assume a critical and analytical attitude toward their work. The application of geology to the oil industry now has sufficient history behind it to have demonstrated clearly that certain geological premises which appear to work in one locality fail utterly in other localities. Therefore we possess only a partial truth which can not be applied without fear and trembling. Scores of structures are drilled and found to be barren with no apparent reason. Therefore the idea of structural accumulation of oil is only a partial truth; or if our ideas of accumulation are sound, our theories of oil migration are at fault; or, again, we, perhaps, should never have expected oil in a particular structure, if we had known more about source beds. We may be at fault in reasoning in any one or in all of these points. We can not with assurance state that we are positive of a single premise. We have merely observed in the course of past experience that oil has been more frequently found on structure than elsewhere, and we are content to follow up and spend money on this partial truth. We have made progress of a kind, but what form does this progress take?

"Have we not been devoting ourselves to the improvement of the technique for

(Continued on Page 107)

*Members of the American Association of Petroleum Geologists enjoying the box lunches provided by the Empire Gas & Fuel Co. on Lookout Point in the El Dorado (Kansas) Field.*

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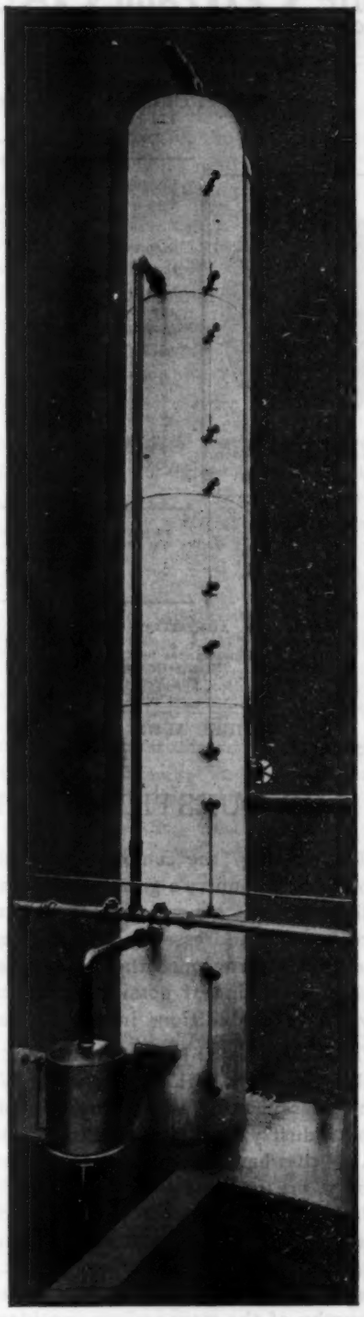

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## ONE QUESTIONNAIRE ANSWERED

Recognizing "the comprehensive knowledge possessed by the editors of the country's great oil and gas journals concerning basic conditions of the general petroleum situation," the President's Oil Board recently addressed a letter to these men inviting their views and suggestions apropos the inquiry now being conducted by the board to determine, if possible, what might be done to more equitably stabilize conditions in the oil world.

The Federal Oil Conservation Board, of which Secretary Weeks, Secretary Wilbur, Secretary Work and Secretary Hoover, are members, having asked the views of the representative men in the oil industry, said it felt that the editors of those great national journals that have contributed so consistently to the welfare of the industry, are fully as competent to advise the Government as are the heads of the important oil corporations. These editors, in the opinion of the board, have a broad impartial viewpoint that embraces the interests of the Government as well as the interests of the oil companies, and therefore their advice and recommendations are worthy of the most serious consideration.

Secretary of the Interior Work, as chairman of the board, said, in making public the letter addressed to the editors, that the board would feel that its inquiry into conditions affecting the entire oil problem would be incomplete without the views of the men, who, through their journals, have been the "advisors and counsellors" of the industry since the very inception of the industry in this country.

The Oil and Gas Journal has compiled answers to the questionnaire addressed by the Federal Oil Conservation Board to the editor of The Oil and Gas Journal, the editor of the Oil City Derrick, Frank T. Lauinger, president of the Petroleum Publishing Company and of the Derrick Publishing Company and Robert W. Egan, vice president and general manager of the Petroleum Publishing Company and the Derrick Publishing Company.

The questions and answers follow:

*1. To what extent, if any, do you consider a shortage of petroleum imminent in this country?*

Every estimate of the petroleum reserves in the United States has subsequently been revised upward by the drill. Virtually every compilation revealed as much or greater quantities of petroleum in underground storage as was shown in former estimates despite the heavy interim drain. (The Oil and Gas Journal, January 8, 1925, page 21.)

A temporary shortage, like a temporary overproduction, is possible at any time but fear of shortage has always provided its remedy by increasing prices stimulating drilling. (The Oil Industry's Answer, page 25.)

The experience and knowledge of the industry justifies the belief that there will be an adequate supply of oil, at a price permitting its production, until such time as a satisfactory substitute motive power is discovered and available.

*2. To what extent and in what manner do you consider that any future shortage of domestic production can or will be lessened;*

*(a) By the increased use of substitutes, including foreign oil, shale oil, coal distillates or organic distillates?*

Foreign oil has already met shortages in American production. If it had not been for our imports of Mexican crude in the past seven years we should not have a barrel in storage today from existing wells. Mexican oil held prices down and therefore discouraged drilling. Shortage in the United States, increasing prices, will stimulate drilling here and exploitation in available foreign fields, such as Mexico, Venezuela and South America. (The Oil and Gas Journal, February 19, 1925, page 23.)

Distillation of shale oil will be available if shortage of well oil increases prices to justify that process. This is true also of coal distillates and organic distillates and perhaps other substitutes yet undreamed of.

*(b) By reducing or avoiding waste in the production, transportation, refining, or distribution of petroleum and its products?*

An industry which in 10 years with an increase of only three times as much raw material has produced six times as much of one product cannot be accused of waste. (The Oil Industry's Answer, page 60.) Such waste as has been inseparable from the production of oil and gas has been forced on the industry by conditions which it has been prevented by restrictions from correcting. Cracking processes and other methods of securing more efficient distillation and fractionation developed by the refining branch of the industry have increased the production of gasoline by one-third and the natural gasoline manufacturers have added more than half as much more by the conservation of casinghead gas. (The Oil Industry's Answer, page 85.) Probably double the production by cracking can be obtained if the price will permit the additional cost of recovery. (Walter C. Teagle, quoted in The Oil Industry's Answer, page 85.)

An industry that has conserved the equivalent of 100,000,000 barrels of crude oil annually by development of one improvement can point to that achievement as an answer to any accusation of wastefulness. (Oil Industry's Answer, page 30.)

*(c) By reducing exports of domestic crude petroleum and its products?*

An embargo on exports, wherever attempted, history shows, has invariably recoiled upon the country adopting it. In Jefferson's time the United States suffered much more than Great Britain and France at whom it was aimed, forcing its abandonment. That experience prevented us attempting a like futility during the great war.

To restrict the exportation of petroleum products would be an act of confiscation toward a great American industry, limiting its normal development. It would destroy our growing market abroad which acts as a stabilizer at home, a safety valve in periods of fluctuation caused by unforseeable natural variations in output. It would invite reprisals abroad and handicap American search for oil sources throughout the world upon which we are likely to be increasingly dependent for our home supply. (The Oil and Gas Journal, April 2, 1925, page 21.)

*(d) By the substitution of coal for fuel oil; by the introduction*

*of more efficient types of internal combustion engines, or by any similar economy in the use of petroleum and its products?*

The substitution of coal for fuel oil is a matter of price and service. Fuel oil has distinct superiorities for heating, as demonstrated by the Government's own tests. (The Oil and Gas Journal, March 12, 1925, page 23.) Its advantages for marine use are beyond dispute, proved by the increase in oil burning vessels. Railroads that can use oil prefer to do so. This is true also of industries. It has preferential uses that justify a greater cost than coal but there is of course an economic limit to that cost. When fuel oil becomes more valuable for cracking its price will automatically reduce its use for the purposes where coal can be substituted. When an overproduction of oil cheapens it these uses afford an outlet for the oil industry which it cannot be denied. (The Oil and Gas Journal, March 6, 1924, page 32.)

Automotive engineers have declared their ability to produce motors that will be vastly more efficient than those of today, giving much greater mileage per gallon. This, when realized, will check the growing demand for gasoline and yet permit a higher price for it and allow greater recovery from crude, gas and fuel oils than is possible at present prices. (The Oil Industry's Answer, page 86; The Oil and Gas Journal, December 20, 1923, page 46.)

*(e) By increasing the total recovery of petroleum from the ground which is commonly held to average not more than 20 per cent by present day methods?*

Since recovery depends largely on gas pressure opinion is increasing that speedy development, with higher initial production, recovers more oil than delayed drilling with wider spacing of wells. (The Oil and Gas Journal, January 10, 1924, page 28.) The recovery of oil left in the ground, as in the great Bradford Field, will become practicable when the price paid for oil makes it a commercial undertaking to flood the wells. This is true also of the use of compressed air and will be, no doubt, of recourse to mining for oil. The oil industry has studied this problem for years. It has found an answer in some fields where "flooding" the sands, the application of air pressure against the sands, the application of vacuum and the utilization of surplus gas from new wells or from casinghead gasoline plants have been more or less successful locally, but the industry has found, too, that what is successful in one field fails in another. Effective methods may be employed to increase recovery where applicable without imposing a price on petroleum products that will be prohibitive in the circumstances. (The Oil and Gas Journal, February 19, 1925, page 21.)

*3. In view of the existing situation, do you consider the use of oil for domestic heating or for generation of steam should be generally fostered and encouraged?*

So long as there is a surplus of oil above that demanded for other purposes the industry is entitled to seek a market where it can be found. If not used for heating or steam making this surplus will overhang the market, depressing the price of petroleum products used for other purposes, demoralizing the industry, handicapping its performance of service to the public and to that extent reacting upon the general welfare of the country. (The Oil and Gas Journal, August 16, 1923, page 19; March 6, 1924, page 32.)

It is equally as obvious that if the use of distillates for domestic heating or the generation of steam is restricted a source of revenue to the petroleum industry has been lost which will have to be offset by higher prices for other refined products. This same situation applies not only to products used as fuel but to all other by-products of petroleum. Consumers have been able to secure their gasoline, the main product of petroleum, at prices relatively cheaper than any other important commodity, because the oil industry has constantly developed new markets for the residuum after the gasoline has been extracted from the crude.

*4. Considering the possibilities of the elimination of waste in retail distribution;*

*(a) Are there too many "links in the chain from producer to consumer"?*

It is believed that stations owned and operated by refining companies will mark a final and permanent step in the development of gasoline marketing on the basis of efficiency and service. (The Oil Industry's Answer, page 77). The direct line from the complete oil company producing its own product, to the consumer at the filling station is the shortest possible chain and the tendency in all businesses under the pressure of keener competition and greater need for efficiency in operation is to shorten the path from producer to consumer. Marketing organizations without such complete facilities must justify their continuance by demonstrated ability to compete with company-owned stations. (The Oil and Gas Journal, August 7, 1924, page 20).

*(b) Are there too many retail outlets for reasonable economy in distribution? The numerous roadside filling stations of the present day, are, as a rule, convenient, pleasing to the eye, an assurance of quality, and a community asset; but what are the economics of this extensive duplication of facilities existing and prospective? If not justified, what remedy do you suggest?*

There is no economic justification or public necessity for the existing number of dispensers of gasoline. The public could be served without inconvenience with a lesser number and to the benefit of the industry as a whole. (See The Oil and Gas Journal, September 18, 1924, page 23). The unnecessary multiplication of the number has been one cause of the frequent disturbances in the gasoline market, vendors who had no other interest in the oil business selling gasoline below its proper price and demoralizing the market when it was to the interest of both consumers and the industry to have the price stabilized. (See The Oil and Gas Journal, September 18, 1924, page 118.)

Cooperation by the representative and responsible elements in the industry, if permitted through the removal of intimidation by uneconomic restrictions, would be able to remedy this evil without prejudice to the public interest.

*5. What are the underlying causes of the more or less temporary periods of overproduction of petroleum?*

The discovery and development of new fields. (The Oil Industry's Answer, page 34.)

*Do you think it will be practicable to control production, and if so, by what means or in what manner?*

By the removal of the restrictions which prevent common counsel and cooperative action within the industry on the regulation of development in accord with the law of supply and demand. When it has attempted to do so it has been accused of conspiracy in restraint of trade. There can be no question of it being practicable if the industry is left free to deal with its problems in its own way. (The Oil Industry's Answer, pages 4, 5 to 11, 25, 32, 34, 62 and 63, 74, 78 and 82.)

*This would include your views as to the practicability of Mr. Doherty's proposals for unit operation and any other method of controlling the development of new pools and preventing unneeded production.*

The unparalleled development of the oil industry in the United States, contrasted with every other country, has been brought about by the independent initiative permitted the producer under our system. Rights acquired under that system cannot be confiscated with justice. The search for petroleum would be hampered, not helped, by attempting to set up another system beside it. (Amos L. Beaty, quoted in The Oil and Gas Journal, December 11, 1924, page 34.) The Doherty proposal has been pronounced impracticable because it takes no account of existing and long established rights,

usages and laws under which the industry has been operated throughout its history and seeks to set up an ideal without regard to realities. It would transfer initiative and decision outside the industry and invite inexpert interference. The power to restrict drilling thus placed beyond control of the industry would imply equal power to permit drilling, offering endless opportunities for injustice or favoritism. The necessary division of royalties would be arbitrary without regard to any of the methods or customs under which the industry has met all demands made upon it. It would inevitably mean stagnation, lessen the chances of oil finding and hasten shortage.

*6. To what extent, if any, do you consider that the exploration of new pools or fields can be carried on and controlled without bringing them into actual production until the market condition warrants increased production?*

The Government can promote conservation by ceasing to force sales of oil lands during periods of overproduction and depressed prices. (The Oil and Gas Journal, June 19, 1924, page 28.) (The Oil Industry's Answer, page 51.)

Development regulations should be left to the industry's practical experience, given freedom to enforce them by the weight of opinion in the industry. The industry alone is responsible for keeping the nation supplied with petroleum products. It assumes all the risks. (The Oil Industry's Answer, page 18.) It finds the capital and has not asked excessive reward. (The Oil Industry's Answer, pages 39, 86.) It is more interested in preventing waste than anyone else, since waste means direct loss to the industry. It has spent immense sums on improved equipment and processes to prevent waste and increase products yet there has been no increase in prices, rather a reduction. The economies have been shared with the public. It can be trusted to regulate development with like benefit to the country and equal zeal, if permitted to find its own solutions.

The farmers are being encouraged by the Government and public to cooperate in promoting the interests of agriculture, being officially advised of the condition in supply and demand and what to produce and when. Like latitude given to the oil industry would enable it to deal with temporary periods of overproduction and assure the elimination of whatever waste can be avoided.

*7. How can the oil industry and the public be brought to more clearly realize their respective responsibilities and to understand that the policies and practices regarding such a vital necessity of our national life as petroleum must be formulated with due regard to the national welfare?*

The Oil and Gas Journal has attempted to promote this understanding by the publication of The Oil Industry's Answer and its transmission to public officials, Federal and State, the daily press and public libraries, educational institutions and trade associations. The industry has appointed a committee to inform the public about oil. A very great deal can be accomplished by the Federal Oil Conservation Board arranging for the widest publicity for its report based on the information and suggestions it receives from the leaders of the industry. The authority of the board appointed by the President of the United States cannot fail to secure a fair hearing from the public and that is all the industry asks, confident of the merits of its case and record.

*8. What steps or arrangements do you consider are desirable and practicable that will lessen the handicaps which our nationals now encounter in connection with the exploration and development of foreign oil fields and will enable them to compete on more even terms with the nationals of other countries? Include in your statement any specific assistance you think can or should be rendered by any branch of the national Government in this matter.*

Active promotion of the open door policy by the Department of State, assuring American oil men equal opportunity in every foreign field with nationals of any other country. A frank advocacy, at home as well as abroad, of this policy, inviting popular support for this promotion of American interests in assuring us our share in the future oil supply of the world, as a national necessity, for the national defense and for the uninterrupted progress of our industrial operations for which petroleum products are essential. Our own people should be officially informed of the vital importance of maintaining our supply of oil, of the invaluable service rendered by the oil industry, and the need for assisting rather than harassing its efforts. The marshaling of a vigorous national opinion behind the State Department's demand for equal opportunity in foreign oil fields to that accorded foreign companies in this country would command compliance. American attacks upon our oil industry at home weaken our position abroad by suggesting that popular opinion here is indifferent to the issue. The Federal Oil Conservation Board can perform no greater service than by demanding fair play for the oil industry.

## JUST A PIECE OF SENSATIONALISM

The New York World is staging another campaign against the oil business. Persons familiar with the manufacture of newspaper sensations know the process thoroughly.

Rumors and suspicions are rounded up and served hot as a general indictment with the hope that the reader will swallow it whole.

There is just one issue involved in the suit for the cancellation of Teapot Dome lease at Cheyenne—whether it was legally made, purely a constitutional and legal question for the interpretation of the courts alone.

If the courts decide the lease is legal, everything else falls to the ground.

It is only if the lease was made illegally that the question will arise whether the Government suffered through the lease or whether there was wrong doing in making it.

But without waiting for the courts to decide this question, which the courts alone are competent to decide, the New York World proceeds to declare the entire oil business guilty, even before a violation of law has been established.

And it does this, not upon any evidence in the Teapot Dome case itself, but upon an isolated deal in oil that had nothing whatever to do with the naval lease.

The methods or merits of the Continental Trading Co. case cannot, by any process of reasoning, enter into the question whether the naval reserve lease was awarded legally.

The whole article in the World was based on suspicion and calculated to foster suspicion in the interest of sensationalism. It was of a piece with the partisan fury in Congress last spring which alarmed business and hastened the depression of last year.

In its indiscriminate denunciation of an entire industry the World article shares the business-wrecking spirit of the demagogs quoted approving it.

The Oil and Gas Journal is not concerned with the personalities involved whose actions are subject to the jurisdiction of the courts of the country but it is concerned about the good name and welfare of the oil industry so baselessly and blindly attacked without a particle of foundation.

The World has been a consistent example of sensational journalism, particularly of that brand which seeks the popular favor by attacks upon the business interests of the country. The oil industry has long been its favorite target, its hostility amounting to a disease.

In the present attack it combines its traditional policy with partisan purpose, hoping to further the fortunes of its party no matter at what cost to truth or to the country, a characteristic attitude.

With this double motive of individual muckraking and party campaigning the article can be appraised at its real worthlessness.

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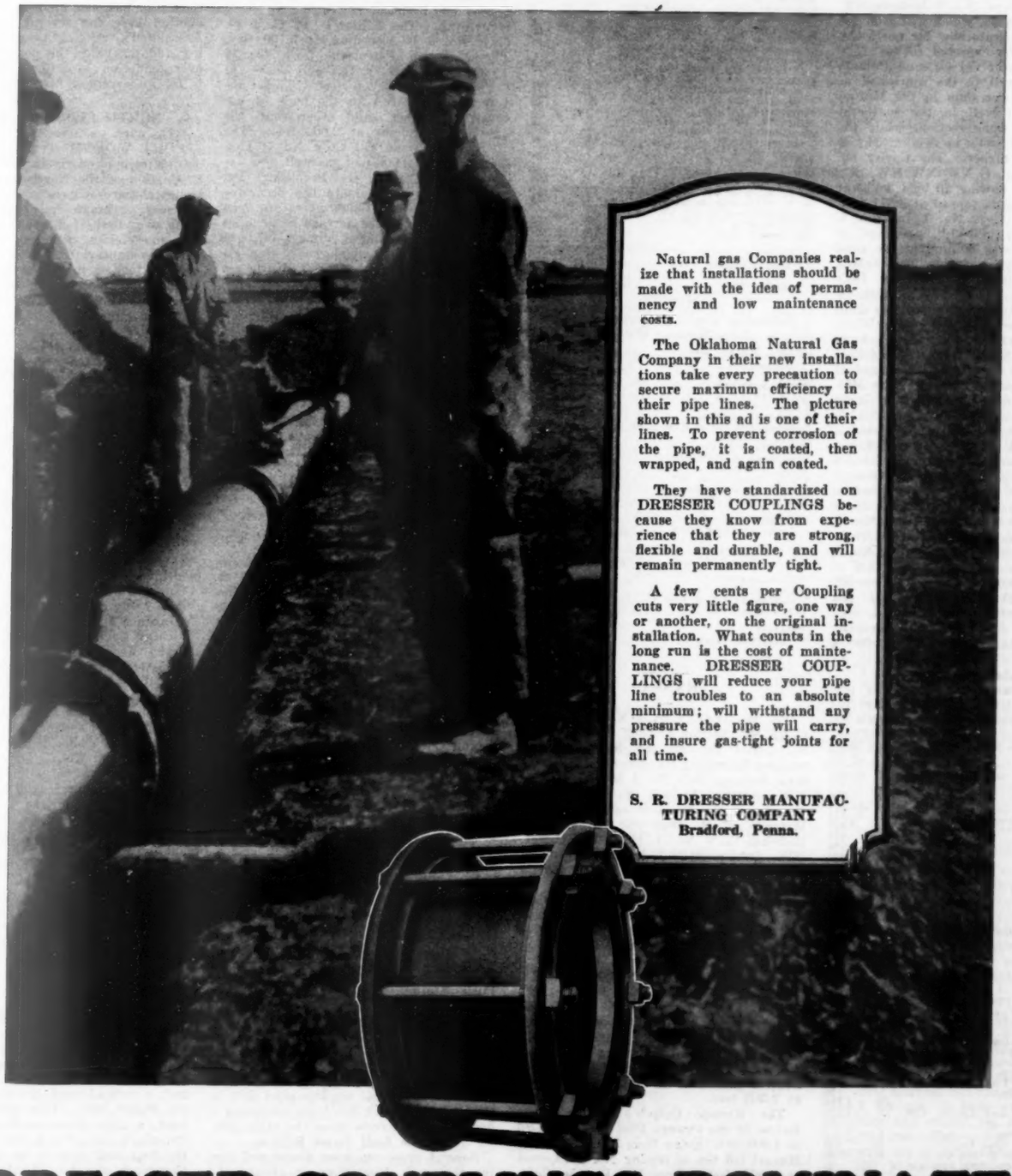

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## DRESSER-COUPLINGS-DOMINATE

# Late News From the Fields

## OKLAHOMA

The Sinclair Oil & Gas Co. and Gardner Petroleum Co.'s No. 6 Larney, NE cor. SW SW, Section 34-11-8, Seminole County, which extended the Cromwell Pool a quarter of a mile northeasterly when it came in Saturday flowing 50 bbls. an hour 50 feet in the sand topped at 3,366 feet, was making 52 bbls. an hour on Tuesday. Their No. 3, NW cor. SW SW, same section, started at 45 bbls. an hour from sand at 3,366-3,430 feet, and on Tuesday was flowing 65 bbls. an hour, but the oil was cutting about 4 per cent. The Sinclair Oil & Gas Co. and others' No. 1 Jackson, SW cor. NW, Section 34, which will soon get the sand will indicate how far north the extension may be expected to go. The sand on the Carter Oil Co. and Pulaski Oil Co.'s new well in the southwest of Section 33 is lower than in the Mutual Oil Co.'s recent well in the southeast quarter of the same section, while the Sinclair-Gardner wells in Section 34 top of the sand is higher. The Carter Oil Co.'s No. 6 Dunn, C NW NW NW, Section 3-10-8 was flowing 20 bbls. an hour and drilling in sand topped at 3,377 feet. The Gypsy Oil Co.'s No. 1 Jackson, C SW NE, Section 33-11-8, got sand at 3,342 feet and was drilling in the sand with a rich showing of gas. The McMan Oil Co. and Magnolia Petroleum Co.'s No. 1 Foster, C NE SE SW, Section 34-11-8 got sand at 3,368 feet and was drilling with a showing of gas. The White Eagle Oil & Refining Co.'s No. 1 Anna Curley, C SE NE SW, Section 14-10-8, was flowing 185 bbls. a day from sand at 3,502 feet drilled in 30 feet. The Mid-Continent Petroleum Corp. had a rig up for No. 1, SE cor. NE, Section 32-11-8, and the Laurel Oil Co. had finished a rig in the C NE NE, Section 5-10-8.

Latest Burbank completions included the following by the Phillips Petroleum Co.'s No. 13, C NW NE NW, Section 12-27-5, sand at 2,978 feet, total depth 3,043 feet, 400 bbls. naturally; No. 4, SE cor. NE, Section 11-27-5, sand at 2,962-3,027 feet, 500 bbls naturally; No. 9, C SW NW SW, Section 12-27-5, sand at 3,000-49 feet, 200 bbls. naturally, but 500 bbls. the first 24 hours after a shot; No. 8, C NE SE SW, Section 12-27-5, sand at 2,976-3,043 feet, 200 bbls. naturally but 500 bbls. the first 24 hours after a shot.

### Oklahoma Pools

Following was the average daily production of Oklahoma pools now in the public eye for the week ending March 25:

| Field— | Wells | Prod. |
|---|---|---|
| Burbank | 1,691 | 57,249 |
| Braman | 9 | 2,362 |
| Tonkawa | 754 | 74,294 |
| Tonkawa (deep sand only) | 91 | 22,911 |
| Gilcrease-Papoose | 137 | 28,649 |
| South Weleetka | 25 | 1,980 |
| Wewoka | 114 | 11,197 |
| Cromwell | 309 | 31,476 |
| Otoe | 13 | 7,322 |
| Hubbard | 4 | 659 |
| Davenport, Lincoln County | 3 | 825 |
| Stroud | 70 | 3,188 |
| Healdton | 1,916 | 15,627 |
| Graham-Fox | 342 | 14,226 |
| Hewitt | 796 | 15,872 |
| Yeager | 1 | 436 |
| Total | 6,275 | 328,873 |

### Cromwell Production

Following was the average daily production of the Cromwell Pool for the week ending March 25:

| Company— | Wells | Prod. |
|---|---|---|
| Amerada Pet. Corp. | 10 | 722 |
| Berry Pet. Co. | 1 | 50 |
| Burke-Greis | 4 | 231 |
| Carter Oil Co. | 37 | 1,994 |
| Carter Oil and Gardner Pet. | 6 | 46 |
| Central Nat'l Pet. Co. | 8 | 568 |
| Continental Oil | 2 | 155 |
| Mid-Co Pet. Corp. | 32 | 2,332 |
| Empire Gas & Fuel Co. | 4 | 235 |
| Gilliland Oil Co. | 3 | 90 |
| Gypsy Oil Co. | 42 | 2,136 |
| Gypsy Oil Co. and Laurel Oil | 3 | 1,322 |
| T. B. Hoffer et al | 3 | 39 |
| Holmes & Jarvis | 1 | 5 |
| Houston Oil & Gas Co. | 2 | 436 |
| Independent Oil & Gas Co. | 3 | 40 |
| Kingwood Oil Co. and Sinclair Oil & Gas Co. | 4 | 132 |
| McMan Oil Co. | 11 | 506 |
| McMan Oil Co. and Magnolia Petroleum Co. | 1 | 556 |
| Mid-Kansas Oil & Gas Co. | 4 | 138 |
| Prairie Oil & Gas Co. | 6 | 358 |
| Pure Oil Co. | 10 | 192 |
| Roxana Pet. Corp. | 21 | 2,121 |
| Shaffer Oil & Refg. Co. | 8 | 836 |
| Sinclair Oil & Gas Co. and Gardner Pet. Co. | 1 | 406 |
| Sinclair Oil & Gas Co. et al | 21 | 6,000 |
| Snowden & McSweeney | 3 | 537 |
| Southwestern Pet. Co. | 16 | 6,226 |
| Superior Oil Co. | 6 | 236 |
| Tidal-Osage Oil Co. | 12 | 1,542 |
| H. F. Wilcox Oil & Gas Co. | 7 | 95 |
| Waite Phillips Pet. Co. | 11 | 1,293 |
| Total | 309 | 31,476 |
| Total last week | 302 | 31,068 |
| Difference | 1 | 408 |

### Papoose-Gilcrease Pool

Following was the average daily production of the Papoose-Gilcrease Pool for the week ending March 25:

| Company— | Wells | Prod. |
|---|---|---|
| Amerada Pet. Corp. | 1 | 175 |
| Arkansas Fuel Oil Co. | 1 | 3 |
| Berry Pet. Co. | 3 | 140 |
| Midco Pet. Corp. | 13 | 5,531 |
| Carter Oil Co. | 5 | 1,812 |
| Foster Inv. Co. | 6 | 392 |
| Gilcrease Oil Co. | 3 | 56 |
| Gilcrease Oil Co. and Papoose Oil Co. | 1 | 9 |
| Gypsy Oil Co. | 3 | 357 |
| Independent Oil & Gas Co. | 10 | 3,160 |
| Independent Oil & Gas Co. and Atlantic Oil Prod. Co. | 1 | 231 |
| Indian Territory Illum. Oil Co. and Barnsdall Oil Corp. | 3 | 831 |
| Josey Oil Co. | 2 | 476 |
| Kingwood Oil Co. | 10 | 1,785 |
| Magnolia Pet. Co. | 2 | 35 |
| Continental Oil Corp. | 1 | 45 |
| Papoose Oil Co. | 13 | 757 |
| Prairie Oil & Gas Co. | 6 | 1,431 |
| Phillips Pet. Co. | 1 | 324 |
| Robinson and Amerada Pet. | 5 | 1,423 |
| Skelly Oil Co. | 1 | 166 |
| T. B. Slick et al | 29 | 5,410 |
| T. B. Slick and Gypsy Oil | 4 | 1,478 |
| Transcontinental Oil Co. | 11 | 2,645 |
| H. F. Wilcox Oil & Gas | 1 | 85 |
| Midwest & Gulf | 1 | 182 |
| Total | 137 | 28,649 |
| Total previous week | 131 | 28,431 |
| Difference | 6 | 218 |

### Wewoka

Following was the average daily production of the Wewoka Pool for the week ending March 25:

| Company— | Wells | Prod. |
|---|---|---|
| Berry Pet. Co. | 1 | 727 |
| Boggs & Sykes | 7 | 1,014 |
| Dixie Oil Co. | 34 | 2,404 |
| Gypsy Oil Co. | 2 | 194 |
| Homaokla Oil Co. | 2 | 42 |
| Independent Oil & Gas et al | 8 | 270 |
| Lewis & Clark | 1 | 36 |
| Magnolia Pet. Co. | 25 | 2,003 |
| Producers & Refiners | 18 | 1,789 |
| W. R. Ramsey | 5 | 1,157 |
| W. R. Ramsey et al | 1 | 4 |
| Roxana Pet. Corp. | 3 | 415 |
| Shaffer Oil & Refg. Co. | 7 | 1,592 |
| Total | 114 | 11,197 |
| Total previous week | 112 | 11,844 |
| Difference | 2 | 647 |

### South Weleetka Field

| Company— | Wells | Prod. |
|---|---|---|
| Magnolia Pet. Co. | 4 | 209 |
| Mid-Kansas Oil & Gas Co. | 8 | 376 |
| Tidal-Osage Oil Co. | 13 | 1,395 |
| Total | 25 | 1,980 |
| Total last week | 24 | 1,985 |
| Difference | 1 | 5 |

## KANSAS

The Wentz Oil Corp.'s No. 1 Thurlow, C NE SE, Section 17-33-3, Cowley County, drilled through the Rainbow sand without improving its showing. The Marland Refining Co.'s No. 1 Melck, SE cor. NW, Section 14-34-2, Sumner County was dry in the Rainbow sand, depth not learned. T. B. Slick and the Marland Refining Co.'s No. 1 Heshett, SE cor. NW, Section 19-33-3, had a showing of oil and gas at 3,094 feet. This is a little west of the Rainbow Bend Pool.

Roth and Mission Oil Co.'s No. 1 Coffee, SW cor. NE, Section 30-31-5, Cowley County, was showing 8,250,000 feet of gas from sand at 1,682-92 feet.

## GULF COAST AND SOUTHWEST

HOUSTON, Tex., March 30.—Latest completions in the Coastal pools include the Gulf Co.'s No. 30 Beaumont, in the Goose Creek Pool, pumping 250 bbls., 2,718 feet. The Gulf Coast and United Central joint No. 31 Galliard is bailing at 2,590 feet.

The Rycade Corp.'s No. 2-C Cow Bayou in the Orange Pool has increased to 4,000 bbls. a day from 3,000 bbls. The Mutual Oil Co. is testing No. 1 Chesson at 4,650 feet, where the Rycade Corp. got the sand.

In the Saratoga Pool, the Regna Oil Co.'s No. 1 Petty is pumping 12 bbls. at 1,312 feet. In the Batson Pool, S. R. Buchanan's No. 81 Milhome is pumping 10 bbls. at 1,055 feet. In the Sour Lake Pool, the Yount Lee Oil Co.'s No. 1 Jackson is a 20-bbl. well at 1,645 feet and M. E. Pevito's No. 10 fee is a 4-bll. at 595 feet.

### Southwest Fields

The Schott Pool in Webb County was extended 1 mile east during the week when the Magnolia Petroleum Co.'s No. 3 Los Ojules came in at 1,880 feet swabbing 100 bbls. The Wheatley Oil Co.'s No. 15 is good for 80 bbls. The Laredo Oil Co. is starting north of the Magnolia company and O. W. Killiam to the east. Chenault & Co. have resumed drilling No. 1 Leaseholders from 1,460 feet. Rains in the Rio Grande River district have provided water for drilling and many of the shut down rigs will now resume.

In Jim Hogg County, Kisselman and St. Albans' No. 14 Holbein is good for 100 bbls. A derrick is up for No. 6. Casing has been set in No. 8 and No. 9 is drilling. The Elliott-T. P. C. & O. Co.'s No. 2 is deepening at 2,100 feet. The Magnolia Petroleum Co.'s No. 4 Thompson is at 2,200 feet and Texas Oil Co.'s No. 3 at 2,200 feet. These are going to 2,700 feet in the hope of uncovering another sand other than the one now producing at 2,000 feet. The Buchanan-Plateau Oil Co.'s No. 3 Holbein is a 25,000,000-foot gas well.

In Starr County, the Brookshire Petroleum Co.'s receivership has been disposed of and some 15,000 acres are open for prospecting. The acreage is 20 miles from a railroad and a number of tests have been drilled, which have been reported favorably geologically. Karnes & Co. have a location east of Rio Grande City on the south end of the escarpment.

In Wilson County, the Houston Oil Co. has a derrick up south of Floresville. The Humble Oil & Refining Co. has a location north of Floresville. The Plateau Oil Co.'s No. 1 east of Stockdale is drilling at 2,765 feet.

In Medina County, Kane and Willis' No. 1 Murphy, south of Howe is below the Edwards lime at 2,400 feet. The California-Medina Oil Co.'s No. 1 is below 2,800 feet in the Pennsylvania formation. The Lampasses-Bisbee Oil Co.'s No. 1 is testing at 1,240 feet.

In the Somerset Field the Grayburg Oil Co. has started No. 32 Ernst.

### Another Wildcat Well

The Gulf Production Co.'s No. 1 Brewster, southeast of Lockhart, is rated at 125 bbls. flush in the Marlo-Serpentine formation at 1,200 feet. Last week Storey and La Fevre got a small well there at the same depth and the United North & South Co. has a 10-bbl. well in North Callahan. This is a new structure for Caldwell County, having no conpection with the Luling Field, where the production is found in a perous lime at 2,050 feet. Fifteen tests are starting around the Brewster, including the Sun Oil Co., Gulf Co., United North & South Co. and independents.

In Guadalupe County, C. W. White is drilling south of Seguin in the Georgetown at 2,200 feet. The Evans Oil Co. is below 800 feet in the new Brewster district. Allen Bearman is drilling No. 1 Bailey. Crouch and others got nothing in No. 1 Brewster at 1,259 feet and are drilling deeper.

### In East Texas

In Cherokee County, pumps are being rigged at No. 1 Callitan to test on the beam at 3,450 feet. It is claimed it shows for a 100-bbl. producer. This is near Ports Station. Hall & Co.'s No. 1, 6 miles east of Ruck, is below 3,000 feet.

In Shelby County, B. C. Millford and others have a derrick up for a deep test at Poxtan Station.

Interests connected with the refinery at Nacogdoches, are preparing to drill a deep test in the old shallow sand field in that county, which has been producing a heavy gravity crude since the early '80s.

### In the Gulf Coast Region

Several prospects were abandoned during the week, located on or around the new domes indicated by seismograph tests.

In Fort Bend County, the Rycade Corp. quit No. 1 Meiser, off the Wisdom Dome, in rock salt at 1,551 feet. The log shows 400 feet of that formation. The Gulf Production Co. abandoned No. 3 Moore in the same county at 1,760 feet. A location has been made for No. 4 Moore.

In Brazoria County the Gulf Co. quit No. 1 Burns, 2 miles west of the town of Brazoria, at 2,200 feet. Little change is noted in the status of these tests, drilling around the oil domes or the new prospects, from the depths given last week. Most of these are being drilled as formation tests with light gasoline-driven rotary outfits and are frequently cored. Much time is thus taken up going in and out of the holes and not much progress is made in getting deeper.

## CALIFORNIA

LOS ANGELES, Cal., March 30.—The Associated Oil Co. has closed a lease on the Hellman property at Seal Beach, the 4,000 acres involved controlling practically the entire structure. The Shell Co. has had an edge well on production here for several months. The Associated's control prevents overdrilling and precludes the possibility of any overproduction situation. The outlook is for an excellent field when developed.

## NORTH CENTRAL TEXAS

FORT WORTH, Texas., March 31.—Estimates made early in the week on the production of the North Texas territory indicate there will be a fairly good increase in average daily production this week over that of a week ago. Production in Wichita, Stephens and Eastland Counties appear to be fairly stable. Archer County at present is on the decline while Young County and the South Vernon Pool in Wilbarger County are showing good gains. First of the week estimates gives the average daily production for the whole of north Texas at 145,550 bbls., as compared with 143,623 bbls., a week ago, showing a gain of 1,927 bbls. Production in Young County has climbed rapidly to more than 10,000 bbls. daily latest reports giving the production of that county at 10,265 bbls. Wilbarger County has pushed beyond the 6,000-bbl. mark. These two counties afforded most of the gain in production.

The water shortage is still a very troublesome problem in the northern sections of the territory, particularly in Archer County and northern Young, where most of the drilling is with rotary tools. The shortage is less apparent in Wilbarger County where considerable of the drilling is being done with cable tools.

Gardner and others' No. 5 Watkins in Wichita County is showing for a producer. According to latest reports it is estimated to be making 125 bbls. daily from the sand at 1,773 feet.

In the South Vernon Pool of Wilbarger County, the Humble Oil & Refining Co.'s No. 10 Castlebury is estimated to be making 225 bbls. from the sand at 1,315 feet and Kolp and others' No. 3 Waggoner is swabbing about 200 bbls. a day from the lower sand at 2,029 feet.

In South Archer the White Brothers have two more producers on their Kunkel lease. They are No. 6 estimated to be making 100 bbls. at 1,158 feet and No. 7 which is swabbing at the rate of 200 bbls. at the same depth. The Magnolia Petroleum Co.'s No. 3 Rogers also in South Archer, is showing for a small producer from seven feet of pay sand topped at 1,333 feet. The well is estimated at 20 bbls.

## MEXICO

### By George Blardone

TAMPICO, Mexico, March 28.—The sensational well of the week is Leonard and others' No. 1 Garruche-Corcovado, in the northern fields, which is in at 1,985 feet, a well of much pressure, rated good for 20,000 bbls. This well is north by west, a short distance from La Corona Petroleum Co.'s No. 3, Lot 11, which was the first real well to be finished in the Corcovado sector. The Leonard well is 145 feet shallower than the Corona No. 3, and a much larger well for the latter was rated at 7,000 bbls., a correct rating as the recently commenced exploitation report shows.

Corona's No. 2, same lot (and this Lot 11 is a narrow strip on the southwest

(Continued on Page 116)

# North-Central Texas Field

By George R. Kelley

**Substantial increase in number of completions but decline in new production. South Archer County present pools thought near peak. North Young County daily production increasing. Frankell district, Stephens County, to the front. Showing in Jeter land, west of Albany, Shackelford County, draws attention.**

FORT WORTH, Texas, March 30.—Operations in the North Texas oil fields were marked by a substantial increase in the number of wells completed and by a sharp decline in the amount of new production added, compared with the new production of the previous week. Archer County, which for months has been the most active spot in the territory, was long on completions but was short of the big wells that marked developments in the preceeding week. This fact accounted mainly for the shortage in flush production.

Production for the week shows only a nominal change from that of a week ago. Total daily average runs from all fields were 143,725 bbls., against total last week of 143,541 bbls., a gain for the week of 184 bbls. The principal gain in production came from the miscellaneous pools, particularly in Young County, Wilbarger County and Callahan County. The miscellaneous districts showed an increase over last week of slightly more than 1,000 bbls.

Completions this week jumped beyond the 100 mark, a total of 102 completions being recorded from the district. Of this number 69 were producers, and 33 were dry holes, no gas wells being reported. New production from the 69 new oil wells amounted to 7,619 bbls., or an average per well of a little more than 110 bbls. The completions for the previous week were 88, of which 55 were producers, 31 were dry holes and two were gas wells. New production for that period amounted to 10,977 bbls.

### Completions by Counties

Archer County registered a total of 47 new completions, 35 producers and 12 failures. New production in the county amounted to 2,728 bbls. While Young County had less than half as many completions as Archer County it led all other areas in new production for the week. With 21 completions, a total of 13 of which were producers, Young County recorded new production amounting to 3,036 bbls. Wichita County had 12 completions, four of which were failures. There were also a number of extremely small wells reported from this county, 8 producers accounting for only 226 bbls. of new production.

Wilbarger County reported eight completions, 5 producers and 3 failures. New production in the county was 675 bbls. Stephens County reported four completions, one of which was a failure. The three producers accounted for 400 bbls. of new production. Eastland County had three completions only one of which was a producer, with new production of 65 bbls. There were seven completions in the wildcat districts. Four of these were producers with 489 bbls. of new production, while three were dry holes.

### South Archer Peak

If the flush production from new wells in Archer County may be taken as an indication there might be some grounds for the conclusion that the present pools of South Archer County have about reached, or probably have passed the peak of their production. A few weeks ago there were some unusually large wells being brought in, but the largest completion of this week is Murchison and others' No. 2 Echols, which is an extension of the Harmel Pool to the northeast. Present indications are that inside locations from now on may be expected to produce a little less flush oil than has been the case heretofore. However with the prospects for the opening up of new pools Archer County may still reach a higher peak in new production.

The situation seems to be slightly different in the northern part of Young County. This area has been gradually climbing in daily production from week to week. There was a gain in Young County during the week of 819 bbls., in daily production, practically every barrel of which came from the shallow sands in the northern part of the county. The 13 new producers in Young County have an average flush production of a little more than 233 bbls. per well. The best completions in Young were by Merchison and others; they have three wells on the Schlegel lease making an aggregate production of 900 bbls., and three on the Gambrell with an aggregate flush output of 620 bbls.

The Frankell district in the south half of Stephens County came to the front during the week with some new production. In this area the Thompson Oil Corp.'s No. 4 Williams is a 150-bbl. producer and Price and others' No. 5 Bruce, though not completed is reported to be swabbing oil at the rate of 300 bbls. daily from the sand at 2,080 feet. The Sun Oil Co.'s No. 4 Decker in Stephens County is flowing by heads, making 80 bbls. of oil and 2,500,000 cubic feet of gas at 2,164 feet.

### Showing in Shackelford

Some importance is being attached to the showing made by the Hope Petroleum Co.'s well on the Jeter land west of Albany, a new completion in Shackelford County. The well is one of the best shallow wells for some time in Shackelford County, with a production of 35 bbls. from sand topped at 992 feet and drilled into only four feet.

There are a number of new producers in the most active districts that have not been completed. In Wichita County the Texhoma Oil & Refining Co. and T. F. Hunter's No. 2 Bailey, is showing for a fair producer at 1,338 feet, having made 31 bbls. on a 12-hour test. John O'Neill's No. 14 Rio Bravo, also in Wichita County on a 12-hour test swabbed 80 bbls. from sand at 1,389 feet.

In Archer County Riner and others' No. 17-B Wilson, is reported swabbing at the rate of 300 bbls. daily from sand at 1,620 feet and Clark and others' No. 7 Echols, is estimated to be good for 200 bbls. at 1,303 feet. The Humble Oil & Refining Co.'s No. 4 Ragle, is estimated to be good for 100 bbls. at 1,096 feet, and the County Line Oil Co.'s No. 5-A Stampfli-Roberts is reported swabbing about 200 bbls. daily from the sand at 1,361 to 1,372 feet.

### North Young Producers

North Young County stands out very prominently also in the number of wells nearing completion, many showing for fairly large producers. The Texas Co. has two new wells on the Gambrell, Nos. 9 and 10, both of which have been drilled to a total depth of 1,225 feet. Number 9 is reported good for about 500 bbls. on the swab and No. 10 is said to be swabbing around 300 bbls. Norton and others' No. 1 Hamilton is swabbing at the rate of 300 bbls. from the sand at a total depth of 1,198 feet.

In the Litchfield district to the east of the Gambrell Pool, Lee Wilson has another good producer on his Haygood lease, No. 2 showing for about 370 bbls. at 1,030 feet. In this same pool Murchison and others' No. 1 Haygood is reported swabbing 400 bbls. from the sand at 1,022 feet. The Texhoma Oil & Refining Co. is completing No. 7 on the Gambrell lease which is swabbing 15 bbls. an hour at 1,228 feet.

Beyond the usual number of completions the South Vernon area of Wilbarger County is showing only a few wells nearing completion. The Winnipeg Oil Co.'s No. 5 Bond is estimated at 250 bbls. at 2,306 feet and the South Vernon Oil Co.'s No. 14 Stephens is swabbing 300 bbls. at 1,302 feet. The Noble Oil Co. has not yet completed its Waggoner wildcat southeast of the producing area about 3 miles. The well is still flowing by heads and making about 85 bbls. Ray and others' No. 7 Bond, up in the South Vernon Pool, is showing for a producer, having flowed over the derrick late in the week from the sand topped at 2,302 feet and drilled to 2,350 feet.

In Mitchell County in the western part of the State the No. 1 Elder, lease 2 of the California Co. is reported swabbing 100 bbls. daily from the regulation depth at 2,565 feet.

**PRODUCTION REPORT**
**Week Ending March 26, 1925**

| | | |
|---|---|---|
| **Burkburnett** | | |
| Gulf Production Co. | 670 | |
| Humble Oil & Refining Co. | 460 | |
| Magnolia Petroleum Co. | 2,655 | |
| Panhandle Refining Co. | 360 | |
| Prairie Oil & Gas Co. | 12 | |
| Sinclair Oil & Gas Co. | 60 | |
| Sun Oil Co. | 170 | |
| The Texas Co. | 510 | |
| Texhoma Oil & Refining Co. | 430 | |
| Miscellaneous | 9,845 | 15,172 |
| **Electra** | | |
| Empire Gas and Fuel Co. | 1,065 | |
| Gulf Production Co. | 940 | |
| Humble Oil & Refining Co. | 130 | |
| Magnolia Petroleum Co. | 3,875 | |
| Panhandle Refining Co. | 75 | |
| The Texas Co. | 3,690 | |
| Texhoma Oil & Refining Co. | 1,690 | |
| Miscellaneous | 5,472 | 16,937 |
| **Iowa Park** | | |
| Gulf Production Co. | 35 | |
| Humble Oil & Refining Co. | 10 | |
| Magnolia Petroleum Co. | 525 | |
| Panhandle Refining Co. | 30 | |
| Texhoma Oil & Refining Co. | 85 | |
| Miscellaneous | 3,535 | 4,220 |
| **Archer County** | | |
| Empire Gas & Fuel Co. | 515 | |
| Gulf Prod. Co. | 3,635 | |
| Humble Oil & Refining Co. | 565 | |
| Magnolia Petroleum Co. | 680 | |
| Panhandle Refining Co. | 225 | |
| Prairie Oil & Gas Co. | 915 | |
| Sun Oil Co. | 335 | |
| The Texas Co. | 2,320 | |
| Texhoma Oil & Refining Co. | 2,855 | |
| Miscellaneous | 29,516 | 41,561 |
| **Petrolia** | | |
| Gulf Production Co. | 40 | |
| The Texas Co. | 65 | |
| Miscellaneous | 300 | 405 |
| **Stephens County** | | |
| Empire Gas & Fuel Co. | 80 | |
| Gulf Production Co. | 1,480 | |
| Humble Oil & Refining Co. | 905 | |
| Magnolia Petroleum Co. | 685 | |
| Mid-Kansas Oil & Gas Co. | 1,760 | |
| Prairie Oil & Gas Co. | 830 | |
| Sinclair Oil & Gas Co. | 130 | |
| Sun Oil Co. | 285 | |
| The Texas Co. | 1,630 | |
| Texas Pacific Coal & Oil Co. | 965 | |
| Miscellaneous | 7,805 | 16,555 |
| **Ranger** | | |
| Gulf Production Co. | 326 | |
| Humble Oil & Refining Co. | 50 | |
| Magnolia Petroleum Co. | 650 | |
| Mid-Kansas Oil & Gas Co. | 210 | |
| Panhandle Refining Co. | 310 | |
| Prairie Oil & Gas Co. | 480 | |
| Sinclair Oil & Gas Co. | 420 | |
| The Texas Co. | 250 | |
| Texas Pacific Coal & Oil Co. | 850 | |
| Miscellaneous | 2,850 | 6,396 |
| **Moran** | | |
| Empire Gas & Fuel Co. | 51 | |
| The Texas Co. | 120 | |
| Texhoma Oil & Refining Co. | 125 | |
| Miscellaneous | 2,450 | 2,750 |
| **Young County** | | |
| Gulf Production Co. | 310 | |
| Humble Oil & Refining Co. | 130 | |
| Mid-Kansas Oil & Gas Co. | 35 | |
| Panhandle Refining Co. | 210 | |
| Prairie Oil & Gas Co. | 10 | |
| Sinclair Oil & Gas Co. | 412 | |
| The Texas Co. | 950 | |
| Texhoma Oil & Refining Co. | 630 | |
| Miscellaneous | 5,465 | 8,152 |
| **Eastland-Comanche** | | |
| Humble Oil & Refining Co. | 180 | |
| Magnolia Petroleum Co. | 1,130 | |
| Mid-Kansas Oil & Gas Co. | 225 | |
| Prairie Oil & Gas Co. | 95 | |
| Sinclair Oil & Gas Co. | 35 | |
| The Texas Co. | 150 | |
| Texas Pacific Coal & Oil Co. | 110 | |
| Miscellanecus | 2,000 | 3,925 |
| **Miscellaneous Pools** | | |
| Wilbarger County | 5,770 | |
| Montague County | 115 | |
| Jack County | 35 | |
| Palo Pinto County | 635 | |
| Brown County | 1,140 | |
| Coleman County | 65 | |
| Callahan County | 3,285 | |
| Mitchell County | 1,642 | |
| Reagan County | 12,825 | |
| Scurry County | 45 | |
| Carson County | 1,775 | |
| Hutchinson County | 195 | |
| Wheeler County | 75 | |
| Gray County | 50 | 27,652 |
| Total this week | | 143,725 |
| Total last week | | 143,541 |
| Gain | | 184 |

### Wichita County Completions

Adams and others' No. 2 Adams, 1 bbl. at 1,907 feet; F. H. E. Oil Co.'s No. 1 Hefley, dry at 1, 602 feet; Hunter and others' No. 4 Bailey, 3 bbls at 396 feet; No. 2 Collen, dry at 400 feet; Barkland and others' No. 4 Burnett, 15 bbls. at 1,463 feet; Dale Oil Corp.'s No. 7 Jennings, 60 bbls. at 1,480 feet; Drillers Development Co.'s No. 1-2 Douglas, 2 bbls. at 365 feet; No. 2-2 Douglas, dry at 1,100 feet; Howell and others' No. 3 Burnett, 60 bbls. at 1,521 feet; Magnolia Petroleum Co.'s No. 37 Allen. dry at 2,064 feet; Ryan Petroleum Co.'s No. 29 Nance, 25 bbls. at 1,685 feet; Texhoma Oil & Refining Co.'s No. 15-B Burnett, 60 bbls. at 1,586 feet.

### Wilbarger County Completions

Bridwell and others' No. 6 Stephens, junked at 2,289 feet; Humble Oil & Refining Co.'s No. 6 Castlebury, 285 bbls. at 1,316 feet; McCamey and others' No. 5 Stephens, 5,000,000 feet of gas at 1,335 feet; Ruff and others' No. 1 Waggoner, dry at 2,052 feet; South Vernon Oil Co.'s No. 9 Stephens, 40 bbls. at 1,970 feet; No. 13 Stephens, 210 bbls. at 1,229 feet; Staley and others' No. 3 Stephens, 100 bbls. at 1,314 feet; Tippit and others' No. 1 Sheldon, dry at 1,246 feet.

### Archer County Completions

Atlantic Oil Production Co.'s No. 1-C Parrish, 80 bbls. at 1,565 feet; Carter and others' No. 7-C White, 28 bbls. at 1,606 feet; Franklin and others' No. 4-B Parrish, 85 bbls. at 1,558 feet; Humble Oil & Refining Co.'s No. 3 Oil Investment Co., 5 bbls. at 1,195 feet; Prairie Oil & Gas Co.'s No. 32-D Wilson, 10 bbls. at 1,382 feet; Sixty-Six Oil Co.'s No. 3-C Wilson, dry at 1,638 feet; The Texas Co.'s No. 1-B Pease, dry at 1,702 feet; Underwood Drilling Co.'s No. 1 Nichols, dry at 1,643 feet; Archer Oil Co.'s No. 1 Coffield, 65 bbls. at 1,385 feet; Atlantic Oil Production Co.'s No. 1 Hayter, 72 bbls. at 1,330 feet; British American Oil Co.'s No. 3 Rogers, 20 bbls. oil at 1,287 feet; Camp Oil & Gas Co.'s No. 1 Holosek, dry at 1,655 feet; Christie Bros.' No. 2 Campbell Bank, 195 bbls. at 1,314 feet; Daniels and others' No. 3 Stampfli, 81 bbls. at 1,346 feet; Davis and others' No. 4 Roach & Junker, 80 bbls. at 1,237 feet; Green and others' No. 4 Abercrombie & Taylor, dry at 1,534 feet; Gwynn and others' No. 2-A Rogers, 25 bbls at 1,376 feet; No. 1 Scruggs, 65 bbls. at 1, 315 feet; Hardesty and others' No. 1 Kunkel, dry at 1,400 feet; Harris and others' No. 3 Stampfli, dry at 1,384 feet; No. 4 Stampfli, 150 bbls. at 1,366 feet; No. 1-B Stampfli, 70 bbls. at 1,371 feet; Humble Oil & Refining Co.'s No. 4 Stampfli, 110 bbls. at 1,367 feet; No. 5 Stampfli, 120 bbls. at 1,376 feet; Gulf Production Co.'s No. 4 Rogers, 45 bbls. at 1,309 feet; No. 5 Rogers, 57 bbls. at 1,312 feet; No. 4 Stampfli, 60 bbls. at 1,333 feet; No. 5 Stampfli, 85 bbls. at 1,353 feet; Magnolia Petroleum Co.'s No. 2 Rogers, dry at

1,379 feet; No. 3 Stampfli, 70 bbls. at 1,367 feet; Murchison and others' No. 2 Echols, 320 bbls. at 1,330 feet; No. 9-C Harmel, 60 bbls. at 1,282 feet; Panhandle Refining Co.'s No. 1 Rogers, 150 bbls. at 1,326 feet; Roxana Petroleum Co.'s No. 5 Kunkel, 25 bbls. at 1,173 feet; No. 7 Kunkel, 40 bbls. at 1,162 feet; Shamrock Oil Co.'s No. 9-A Richardson, 150 bbls. at 1,358 feet; Shaw and others' No. 8 Hausler, 120 bbls. at 1,142 feet; No. 4-B Hayter, 2 bbls. at 1,344 feet; No. 5 Hayter, 125 bbls. at 1,329 feet; Shaw and others' No. 6 Hayter, dry at 1,378 feet; No. 9-A Monohan, dry at 1,346 feet; Southern Exploration Oil Co.'s No. 1 Pace, dry at 1,606 feet; Sun Oil Co.'s No. 3 Kunkel, 7' bbls. at 1,146 feet; No. 5 Kunkel, dry at 1,190 feet; The Texas Co.'s No. 2 Hill, 20 bbls. at 1,362 feet; No. 3 Hill, 3 bbls. at 1,375 feet; No. 10 Ragle, 60 bbls. at 1,093 feet.

**Young County Completions**

Anderson and others' No. 1 Graves, 29 bbls. at 1,026 feet; Andrade and others' No. 1 Haley, dry at 1,519 feet; Christie Bros.' No. 3 McLaren, 60 bbls. at 2,377 feet; Gilliland and others' No. 1 Wilde, dry at 1,506 feet; Knight and others' No. 1 Bellamy, dry at 1,512 feet; Moore and others' No. 1 Cheeves, dry at 1,041 feet; Gulf Production Co.'s No. 1 Haygood, dry at 1,409 feet; Murchison and others' No. 14 Gambrell, 95 bbls. at 1,218 feet; No. 15 Gambrell, 275 bbls. at 1,226 feet; No. 16 Gambrell, 250 bbls. at 1,228 feet; No. 4 Schlegel, 300 bbls. at 1,192 feet; No. 5 Schlegel, 300 bbls. at 1,192 feet; No. 6 Schlegel, 300 bbls. at 1,193 feet; Muse and others' No. 1-A Schlegel, 25 bbls. at 1,192 feet; Pois and others' No. 1 Jordan, dry at 1,210 feet; Simms Oil Co.'s No. 4-A Carpenter, 87 bbls. at 1,028 feet; No. 7 Carpenter, 410 bbls. at 1,040 feet; No. 1-B Carpenter, 350 bbls. at 1,041 feet; Suggett and others' No. 1 Hawkins, dry at 1,304 feet; The Texas Co.'s No. 9 Gambrell, 555 bbls. at 1,228 feet; Wichtex Oil Co.'s No. 1 Kendrick, dry at 1,510 feet.

**Stephens County Completions**

Quakins Petroleum Co.'s No. 2 Bruce, dry at 2,095 feet; Texas Pacific Coal & Oil Co.'s No. 49 Binney, 40 bbls. at 1,752 feet; Thompson Oil Corp.'s No. 4 Williams, 150 bbls. at 2,125 feet; Gulf Production Co.'s No. 8 Davis, 210 bbls. at 3,267 feet.

**Eastland County Completions**

Knox-Lewis Oil Co.'s No. 1 Cooksey, dry at 1,795 feet; Magnolia Petroleum Co.'s No. 2 Allaman, 65 bbls. at 1,463 feet; Pittman and others' No. 3 Ford, dry at 1,500 feet.

**Wildcats—Completions**

Hutchinson County—Douglas Oil Co.'s No. 1 Whittenburg, 52 bbls. at 3,062 feet.

Carson County—Gulf Production Co.'s No. 5 Burnett, 312 bbls. at 3,079 feet; Silk and others' No. 3-A Burnett, 90 bbls. at 3,055 feet.

Baylor County—Richardson Bros.' No. 1 Wallace, dry at 2,000 feet.

Shackelford County—Hope Petroleum Co.'s No. 1 Jeter, 35 bbls. at 996 feet; Humble Oil & Refining Co.'s No. 1 Green, dry at 3,833 feet.

Callahan County—Donley Bros.' No. 1 Isenhower, dry at 1,845 feet.

**Wichita County Drilling**

Dale Oil Corp.'s No. 8 Jennings is drilling at 1,320 feet; Empire Gas & Fuel Co.'s No. 7 Pierce, at 930 feet; No. 8 Pierce, at 930 feet; No. 9 Pierce, at 930 feet; Fuller and others' No. 1 Snow, at 1,600 feet; Hammond and others' No. 1 Waggoner, at 2,008 feet; Hawkins and others' No. 1-B Watkins, setting casing at 1,771 feet; Howell and others' No. 4 Burnett, drilling at 305 feet; No. 5 Burnett, at 1,531 feet; Humble Oil & Refining Co.'s No. 17 Douglas, cleaning out at 1,960 feet; Leath and others' No. 1 Fossett, drilling at 900 feet; Magnolia Petroleum Co.'s No. 67 Honaker, at 1,270 feet; No. 16 Maer, setting casing at 1,740 feet; No. 18 Maer, drilling at 995 feet; No. 43 Rio Bravo, at 1,965 feet; No. 4 Watkins, in shale at 1,380 feet; Moore and others' No. 4 Burnett, testing a sand at 1,805 feet; Petroleum Production Co.'s No. 13 Maer, drilling at 1,580 feet; Ryan Petroleum Co.'s No. 1 Henson, underreaming; No. 31 Nance, drilling in rock at 650 feet; No. 32 Nance, drilling at 900 feet; Section 2 Oil Co.'s No. 7 Burnett has a show of oil at 1,650 feet; Texhoma Oil & Refining Co.'s No. 3-B Burnett, cleaning out at 1,820 feet; Texhoma Oil & Refining Co.'s No. 16-B Burnett, testing a sand at 1,590 feet; No. 2-B Burnett has a show of oil at 1,593 feet; Banchil and others' No. 2 Beach, drilling at 500 feet; Brookover and others' No. 1 Hefley, at 1,155 feet; Couch and others' No. 13 Donehoo, at 1,000 feet; Magnolia Petroleum Co.'s No. 110 Reilly, underreaming; No. 2 Morgan, cleaning out at 1,578 feet; No. 1 Weeth, drilling at 1,275 feet; No. 11 Beach, cleaning out at 1,203 feet; White and others' No. 1 Reilly, drilling at 150 feet. Continental Oil Co.'s No. 6 Roller, setting casing at 1,015 feet.

**Archer County Drilling**

Panhandle Refining Co.'s No. 4 Orton is drilling at 1,680 feet; Wolfe and others' No. 1 Chilson, at 1,785 feet; Atlantic Oil Co.'s No. 2-C Parrish, at 1,550 feet; No. 6 Parrish, underreaming; Barkley and others' No. 5 Wilson, running liner at 1,538 feet; Burns and others' No. 1 Parrish, drilling at 1,310 feet; Carter and others' No. 6-C White has a show of oil at 1,603 feet; No. 1 White, drilling at 1,630 feet; Carter & Myers' No. 1 Wilson, at 1,000 feet; Dale Oil Corp.'s No. 10 Wilmot, at 1,325 feet; Empire Gas & Fuel Co.'s No. 3-A Wilson, cleaning out at 1,613 feet; Franklin and others' No. 5-B Parrish has an oil show at 1,559 feet; No. 6-B Parrish, drilling at 840 feet; Jetter and others' No. 3 White, fishing at 200 feet; Lawson and others' No. 4 Wilson, drilling at 645 feet; Norwood and others' No. 1 Carson, at 300 feet; Oasis Oil Co.'s No. 1 Wilson, at 400 feet; Oil Investment Co.'s No. 7 fee, at 1,100 feet; W. Phillips and others' No. 1 Wilson, at 1,330 feet; Phillips Petroleum Co.'s No. 22-E White has a show of oil at 1,602 feet; Riner and others' No. 15-B Wilson, drilling at 1,605 feet; No. 25-B Wilson, at 800 feet; Staley and others' No. 11-C Wilson, underreaming; Thomas and others' No. 1 Parmenter, drilling at 1,300 feet; Underwood Drilling Co.'s No. 1 Reilly, at 600 feet; United Central Oil Corp.'s No. 1 Wilson, 900 feet; Union Oil Co.'s No. 1 Parrish, at 1,100 feet; Archer Oil Co.'s No. 2 Coffield, at 1,300 feet; Comac Oil Co.'s No. 1 Seay, at 1,440 feet; Crosslin and others' No. 1 Kreiter, at 755 feet; W. Phillips and others' No. 1 Wolf, at 1,200 feet; Rayzor and others' No. 1 Porter, at 760 feet; Richardson Brothers' No. 1 Boone, at 1,545 feet; Ross and others' No. 1 Seay, at 600 feet; Sun Oil Co.'s No. 1 Graham, underreaming; No. 9 Farmer, drilling at 1,360 feet; Young and others' No. 1 Abercrombie, at 1,390 feet; Atlantic Oil Producing Co.'s No. 2 Hayter, at 50 feet; British American Oil Co.'s No. 5 Rogers, fishing at 970 feet; No. 6 Rogers, drilling at 1,200 feet; Burton and others' No. 1 Jeske, at 825 feet; Christie Brothers' No. 3 Campbell Bank, at 912 feet; No. 4 Campbell, at 340 feet; Clark and others' No. 2 Rogers, at 1,330 feet; No. 3 Rogers, reaming at 1,337 feet; No. 6 Echols, driling at 1,235 feet; Continental Oil Co.'s No. 9 Harmel, at 200 feet; Davis-Hart Oil Co.'s No. 5 Roach & Junker, at 890 feet; Grisham and others' No. 4 Hayter has a show of oil at 1,370 feet; Gwynn and others' No. 3-A Rogers, drilling at 1,220 feet; Harvey and others' No. 3 Kunkel, at 925 feet; Humble Oil & Refining Co.'s No. 5 Ragle, at 300 feet; No. 7 Stampfli, at 1,240 feet; No. 8 Stampfli, at 1,064 feet; No. 9 Stampfli, at 1,033 feet; No. 10 Stampfli, at 454 feet; Magnolia Petroleum Co.'s No. 4 Rogers, at 1,030 feet; No. 5 Stampfli, at 1,230 feet; No. 6 Stampfli, at 1,075 feet; McKnight and others' No. 1 O'Donnell, at 1,110 feet; Murchison and others' No. 3 Echols, at 300 feet; No. 18 Griffin, setting casing at 1,296 feet; No. 10 Harmel, drilling at 820 feet; Petroleum Production Co.'s No. 1-B Hausler, setting casing at 1,120 feet; Richardson and others' No. 1 Ward, drilling at 100 feet; Roxana Petroleum Corp.'s No. 3 Kunkel, cleaning out at 1,165 feet; Shamrock Oil Co.'s No. 9 Richardson, drilling at 200 feet; No. 17 Richardson, at 300 feet; No. 18 Richardson, at 100 feet; Shaw and others' No. 3-A Hayter, at 930 feet; No. 4 Hayter, at 50 feet; No. 7-B Hayter, feeling for sand at 1,330 feet; No. 1-B Monohan, drilling at 600 feet; No. 1 Rogers, at 1,030 feet; Sun Oil Co.'s No. 1 Jeske, at 1,462 feet; The Texas Co.'s No. 1 Boren, testing a sand at 1,085 feet; No. 20 Ragle, drilling at 280 feet; Texhoma Oil & Refining Co.'s No. 12 Harbison, at 1,240 feet; No. 13 Harbison, at 1,149 feet; No. 1 Morrison, at 1,175 feet; United Central Oil Corp.'s No. 5 Rogers, at 1,100 feet; No. 6 Rogers, at 450 feet; White Brothers' No. 8 Kunkel, at 100 feet; Willis and others' No. 1 Greenway, at 1,005 feet.

**Wilbarger County Drilling**

Atlantic Oil Producing Co.'s No. 1 Parker is drilling at 2,440 feet; No. 1 Waggoner, at 750 feet; Atlantic Oil Producing Co. and others' No. 1 Waggoner, at 2,303 feet; Atlantic Oil Producing Co.'s No. 1 Zipperle, fishing at 1,096 feet; No. 2 Zipperle, fishing at 1,167 feet; Barkley and others' No. 2 Stephens, drilling at 1,030 feet; Beatty and others' No. 1 Waggoner, at 890 feet; Bridwell and others' No. 5 Dill, setting casing at 2,291 feet; No. 7 Stephens, drilling at 2,254 feet; No. 8 Stephens, at 1,835 feet; No. 1 Waggoner, at 1,921 feet; Texas Pacific Coal & Oil Co.'s No. 1 Waggoner, underreaming; Burton and others' No. 1 Castlebury, underreaming; No. 1 Zipperle, drilling at 700 feet; Continental Oil Co.'s No. 2 Zipperle, at 1,050 feet; No. 3 Zipperle, underreaming; Durham and others' No. 1 Waggoner, drilling at 200 feet; Dyson and others' No. 1 Waggoner, spudding; Hamilton and others' No. 1 Neal, drilling at 2,025 feet; Hoffer Oil Corp.'s No. 1 Waggoner, cleaning out at 1,850 feet; Humble Oil & Refining Co.'s No. 3 Castlebury, drilling at 2,185 feet; No. 11 Castlebury, at 983 feet; No. 12 Castlebury, at 1,024 feet; No. 14 Castlebury, at 655 feet; No. 1 Waggoner, fishing at 2,075 feet; Key and others' No. 1 Waggoner has a show of gas at 1,650 feet; Knight and others' No. 1 Waggoner, drilling at 1,290 feet; No. 3 Waggoner, at 325 feet; No. 4 Waggoner, underreaming; No. 5 Waggoner, setting casing at 960 feet; Levy and others' No. 2 Waggoner, drilling at 1,150 feet; No. 1 Wheeler, at 1,770 feet; Lippard Oil Co.'s No. 1 Fluhman, at 1,670 feet; Mattylee Lippard Oil Co.'s No. 1 Waggoner, spudding; Little Oil Co.'s No. 1 Youngblood, drilling at 2,250 feet; Camey and others' No. 5 Richardson, at 1,250 feet; No. 6 Stephens, at 1,462 feet; No. 7 Stephens, at 1,660 feet; No. 10 Stephens, at 1,025 feet; No. 12 Stephens, fishing at 1,045 feet; No. 14 Stephens, spudding; No. 19 Stephens, spudding; McKenna and others' No. 1 Waggoner, drilling at 350 feet; Magnolia Petroleum Co.'s No. 67 fee, at 1,185 feet; No. 1 More-Waggoner, setting casing at 810 feet; Maxwell and others' No. 1 Morris, drilling at 600 feet; Murchison and others' No. 1 Waggoner, fishing at 1,296 feet; Oxford Oil Co.'s No. 2 Waggoner, drilling at 1,900 feet; Priddy and others' No. 3 Castlebury, at 960 feet; Ray and others' No. 7 Bond, testing at 2,332 feet; No. 8 Bond, drilling at 1,900 feet; Root and others' No. 1 McCrary, spudding; Simms Oil Co.'s No. 1 Collins, drilling at 550 feet; South Vernon Oil Co.'s No. 3 Stephens, at 1,800 feet; No. 6 Stephens rigging to pump; No. 7 Stephens, drilling at 2,310 feet; No. 15 Stephens, spudding; No. 16 Stephens, drilling at 820 feet; No. 17 Stephens, at 200 feet; No. 19 Stephens, at 900 feet; No. 21 Stephens, at 750 feet; Staley and others' No. 1 Bond, at 350 feet; No. 4 Stephens, at 750 feet; No. 5 Stephens, at 800 feet; No. 6 Stephens, at 300 feet; The Texas Co.'s No. 1-B Castlebury, in shale at 1,825 feet; No. 1 Owens, drilling at 400 feet; No. 202 Waggoner, at 2,333 feet; No. 299 Waggoner, at 1,398 feet; Texhoma & Allday's No. 1 Betts, at 2,005 feet; Texhoma & Holmes' No. 1 Thomas, cleaning out at 1,265 feet; Wells and others' No. 4 Waggoner, spudding; No. 5 Waggoner, drilling at 780 feet; Winnipeg Oil Co.'s No. 6 Bond, testing a sand at 2,271 feet; No. 7 Bond, drilling at 700 feet; Wood and others' No. 1 Streit, at 2,367 feet.

**Young County Drilling**

Andrade and others' No. 1 Gose, is drilling at 1,120 feet; Burns and others' No. 1 fee, at 1,230 feet; Burton and others' No. 1 Weaver, at 820 feet; Cox and others' No. 1 Wilson, at 100 feet; Everest and others' No. 1 Womack, at 400 feet; Gardner and others' No. 1 Schlegel, at 770 feet; Hinson and others' No. 1 Laquey, at 700 feet; No. 1 McLaren, setting casing at 2,362 feet; Humble Oil & Refining Co.'s No. 4 Schlegel, drilling at 1,120 feet; Jenson Oil Co.'s No .1 Vernon, has oil sand at 1,089 feet; Lesh and others' No. 8 Kemp, drilling at 990 feet; Marland Oil Co.'s No. 1 Harrison, drilling by tools at 3,050 feet; Mitcham and others' No. 1 Buster, drilling at 932 feet; Murchison and others' No. 2 Schlegel, at 700 feet; No. 9 Schlegel at 750 feet; Muse and others' No. 2-A Schlegel, at 1,137 feet; No. 3-A Schlegel, at 250 feet; No. 1-B Schlegel, at 1,050 feet; Norton and others' No. 2 Hamilton, at 300 feet; Panhandle Refining Co.'s No. 1 Van Hamert, fishing at 930 feet; Reed and others' No. 1 Cloud, drilling at 375 feet; Roamer Oil Co.'s No. 4 Stewart, at 490 feet; Simms Oil Co.'s No. 8-A Carpenter, at 560 feet; No. 3-B Carpenter, at 174 feet; The Texas Co.'s No. 1 Carr, at 1,162 feet; No. 4 Gambrell, at 626 feet; No. 11 Gambrell, preparing to drill in at 1,208 feet; No. 12 Gambrell, drilling at 200 feet; No. 13 Gambrell, at 350 feet; No. 14 Gambrell, at 100 feet; No. 1 Graham, reaming at 1,540 feet; Whitehead and others' No. 1-B Belknap Coal, drilling at 1,550 feet; Lee Wilson and others' No. 3 Haygood, at 980 feet; Wolf and others' No. 1 Haygood, at 830 feet; Wurtz and others' No. 1 Wells, at 1,425 feet.

**Stephens County Drilling**

Cox and others' No. 1 Cunningham, drilling at 2,530 feet; Critten and others' No. 8 Cobb, drilling by tools at 3,323 feet; Humble Oil & Refining Co.'s No. 6 Keel, setting casing at 853 feet; Interstate Consolidated Oil Co.'s No. 1 Lane, drilling at 3,127 feet; Mid-Kansas Oil & Gas Co.'s No. 11 Atkins, account 1, at 540 feet; No. 13 Hill, at 1,030 feet; No. 15 Hill, at 3,160 feet; Pender Production Co.'s No. 5 Keel, at 2,270 feet; Phillips Petroleum Co.'s No. 1 Allen, spudding; Rosell Production Co.'s No. 2-B Brown, drilling at 2,365 feet; Snowden & McSweeney's No. 5 Higginbotham, setting casing at 3,195 feet; Sun Oil Co.'s No. 5 Stoker, drilling by casing at 2,275 feet; Texas Consolidated Oil Co.'s No. 6 Martin, drilling at 3,460 feet; Texas Pacific Coal & Oil Co.'s No. 4 Kirby, spudding; Barkley and others' No. 1 Pritchard, fishing at 570 feet; Brown & Co.'s No. 2 Akin, drilling at 2,278 feet; Buckeye Pipe & Supply Co.'s No. 1 Pisgah Church, at 920 feet; Carter and others' No. 2 Langford, at 910 feet; No. 1 Polan, fishing at 2,080 feet; Curry Pool Oil Co.'s No. 2 Jones, drilling at 872 feet; Hughes and others' No. 4 Gandy, drilling by tools at 3,195 feet; Kleinfelder and others' No. 2 Grimes, drilling at 500 feet; Knox & Lewis' No. Flournoy, fishing at 3,870 feet; Landreth Production Co.'s No. 2 Gratz, drilling at 1,900 feet; Magnolia Petroleum Co.'s No. 4 Jones, at 2,525 feet; No. 5 Walker, at 2,460 feet; Mahlstedt Mook Oil Co.'s No. 4 Bruce, spudding; No. 2 Head, drilling at 3,610 feet; Pender Production Co.'s No. 1 Elder, at 2,125 feet; States Oil Corp.'s No. 2 Boles, plugging back to 3,560 feet; Texas Fidelity Oil Corp.'s No. 8 Gardenshire, drilling at 1,910 feet; Texas Pacific Coal & Oil Co.'s No. 6 Adams, at 1,325 feet; No. 2 Hand, account 2, at 2,345 feet; No. 2 Pierce, fighting water at 1,971 feet; No. 1 Veale, drilling at 4,370 feet; The Texas Co.'s No. 11 Keathley, at 1,292 feet; No. 42-A Parks has 2,000,000 feet of gas at 1,891 feet.

**Eastland County**

Calloway and others' No. 1 Wilson is drilling at 625 feet; Gholson and others' No. 1 Gholson, at 1,525 feet; Kirk and others' No. 6 Shugart, at 1,825 feet; Lightfoot and others' No. 1 Allen, fishing at 2,970 feet; Magnolia Petroleum Co.'s No. 8 Hankins, drilling at 2,760 feet; No. 5 Rogers, at 640 feet; Mid-Kansas Oil & Gas Co.'s No. 10 Harrell, account 2, spudding; Mook Texas Oil Co.'s No. 1 Williamson, drilling at 1,530 feet; Parsons and others' No. 1 Jones, at 2,170 feet; No. 2 Motes, at 940 feet; Porter

(Continued on Page 105)

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4-2-25

# Rocky Mountain Area

By F. R. Taylor

**New York Oil Co. plans test near Aberdeen, Washington State; also on Boone Dome, Wyoming. The Texas Co.'s test on Wertz Dome, attracting attention. Thirteen completions in Salt Creek during week. Status of operations in Teapot Dome under receivership. Lake Basin, Montana, disappointing.**

CASPER, Wyo., March 28.—The New York Oil Co. has outlined its campaign for 1925 and is prepared to embark on a wildcat operation of magnitude in the northwest country. It is one of the oldest of the independent firms of the Rocky Mountain region, founded under the leadership of the late Frank G. Curtis and Minal Young, Mr. Young now being the active head of the company with his main office at Casper. The company is moving in equipment for a well over on the Pacific Coast, a few miles out of Aberdeen, Wash. This well has been located by E. Russell Lloyd, Denver geologist and others, and is the first well to be drilled in that vicinity by a recognized oil company.

The New York is also starting on the deep test on Boone Dome in Natrona County. Boone Dome lies about 4 miles southwest of Powder River and is a well defined structure on the great Powder River uplift. The company secured this structure several years ago and drilled a well that found a big gas pressure in the first Wall Creek sand. This well showed the structure was productive of gas and the New York laid its Poison Spider gas line to supply Casper with gas, mainly because it had the Boone Dome to fall back on when the Poison Spider would become exhausted.

Then the company drilled a second well that also developed gas in the first Wall Creek, but it was decided the second Wall Creek sand held great oil possibilities and this second hole was cased through the first Wall Creek sand so as to conserve the gas found there and the drill sent on down. After reaching around 4,000 feet the hole gave the drillers considerable trouble and the cable tools were at last taken out and a Sullivan diamond drill substituted. This drill was at 4,834 feet last fall when the work was shut down for the winter and it is expected the well will be completed through the Frontier formation this summer. This drill is known as the type FK and is a large size core drill, capable of going to 6,000 feet.

### Marketing Teapot Gas

The New York Oil Co. is reported as having arrived at a satisfactory agreement with the receivers of the Teapot Dome in regard to the marketing of the gas from the wells on that structure. The New York, according to this tentative agreement, will place a compressor plant in Teapot and extract the gasoline from the gas production, then the gas will be carried to Casper and utilized in the company's distribution system here. The Central Pipe Line Co.'s line from Salt Creek to Casper is considered a likely carrier for the Teapot gas as this line is reported as not having enough oil to keep it in operation and would serve as a carrier for the gas.

Teapot now is producing from about 60 wells and the proceeds from the oil are being invested in Liberty Bonds by the receivers. This sum being held in escrow has grown since March 13, 1924, when the receivers took over the Teapot Dome from the Mammoth Oil Co. to over $1,000,000 although the production has steadily declined since the Mammoth withdrew from active control. The production averages about 32 bbls. per well and for the past week the total was 2,260 bbls.

The New York Oil Co. recently took over the Fargo Oil Co.'s big compressor plant in the Poison Spider Field which the Fargo had installed there three years ago when there was a much larger gas production than at present. The agreement by which the New York Oil Co. obtained this plant was that the Fargo would receive pay for the plant in the form of oil production from the New York Oil Co.'s wells in the Poison Spider Field. These wells are making a black oil production and the Fargo combines this production with that from its own wells in the Spider and ships all the production to Casper to the Midwest through the Fargo pipe line. The Fargo has a contract with the Midwest Refining Co. whereby the Fargo is to deliver to the Midwest 1,000,000 bbls. of this black oil at a price considered to average about $1 per barrel. This black oil is refined at the Casper plant of the Midwest into asphalt in the main, though a small percentage of light cuts is obtained in this refining. The oil makes an excellent asphalt but is not suitable for cracking into gasoline as in the pressure stills it has been found it will quickly fill the still with coke and give comparatively little gasoline in the cracking process.

### Wertz Dome Test

The Texas Co., drilling a well on Section 12-26-90 on the Wertz Dome in the Lost Soldier Field in Carbon County, has reached an interesting stage. This location was considered too far out on the structure by several geologists to be in the gas production and it was rather freely predicted it would prove dry. Wertz Dome is a gas structure in the Lost Soldier Field and no oil has been found there. This new well of The Texas Co. has reached close to 4,000 feet and the Dakota sand is expected at any time. A few days ago the bit opened a sand thought to be the Dakota and the well has filled up 1,500 feet with oil. Drilling was stopped and tankage is now being built.

Should the Wertz Dome be found oil producing down on the slope of the structure, it would mean much to the Producers and Refiners and the Prairie as these two firms practically control the whole structure. This dome has been carrying most of the demand for gas for the trunk line to Casper and is holding up strong under the load, but the time is sure to come when the gas pressure will go down and if the structure produces oil, the companies interested will be able to derive a neat profit after the gas is no longer available.

### Salt Creek Field

The Midwest Refining Co. has completed 13 wells in Salt Creek the past week. The Wyoming Associated has a producer good for 165 bbls. on Section 26-40-79 at 1,065 feet and on Section 35-40-79, one good for 35 bbls. at 1,444 feet. The company completed a producer good for 50 bbls. on Section 26-40-79 at 1,432 feet; one on Section 30-40-78 that found production of 20 bbls. at 2,029 feet and another on Section 15-40-79 in the Second Wall Creek sand at 2,700 feet that will make a 25-bbl. well.

The Wyoming Associated and the Midwest Oil Co., together completed two wells, one on Section 13-40-79 that will make 20 bbls. from a depth of 1,863 feet and one on Section 36-40-79 that will do 15 bbls. from 1,795 feet.

The Midwest Oil Co. completed a producer good for 30 bbls. on Section 26-40-79 found at 1,466 feet and another on Section 26-40-79 that will make 25 bbls. at 1,495 feet.

The Salt Creek Consolidated Oil Co. completed three nominal wells in the Midwest list that will average about 20 bbls. each. One on Section 31-40-79 in the second Wall Creek at 2,177 feet; one on Section 11-39-79 that found the second Wall Creek sand at 2,260 feet and a third producer on Section 31-40-79 that found the same sand at 2,351 feet.

The Wyoming Oil Fields Co. on Section 19-40-78, completed a producer good for 130 bbls. at 1,967 feet.

The Kinney Coastal deep test on Section 19-39-78, is drilling again after recovering tools and the hole is now at 3,900 feet. Both deep tests of the Kasoming and the Mutual firms are having trouble and are not drilling. The two Midwest wells are waiting for cement to set.

### New Mexico Play

New Mexico is to have a big play by the wildcatters according to late reports from Denver and other points. Leases are commanding good prices where a geological O. K. can be shown and the whole State is being combed for possibilities. It is recognized that about the only chance lies in the Dakota formation, which factor limits the possibilities of production to a rather narrow section of the geological colmun, but in spite of this fact, the oil men appear to be willing to take a chance.

### Lake Basin Field

The Lake Basin Field in Montana is not showing up as well as it did a few months ago. The Midwest has one producing well there now and the other wells that were drilled or drilling have almost all been abandoned on account of the dusters that the Midwest found in the first three drilled after the discovery well was brought in.

The Lake Basin Field lies about 35 miles northwest of Billings, in central Montana and last year the Midwest, through its subsidiary the Midnorthern Oil Co., drilled in a producer that found oil in the Dakota formation about 3,800 feet deep. This meant long and costly drilling and the Midwest started to drill other wells with a rotary outfit and also employed standard tools. These other wells have not come in as expected and it now looks as though the field is about done for except the discovery well.

### Colorado Operations

The Continental Oil Co.'s wildcat in Yuma County, on Section 22-2-43, looks like a duster. This well is in the Dakota formation at 2,880 feet and has found water in the Dakota and Lakota sands. It is expected the well will be drilled on down to the Red Beds for a complete test. This location is within a few miles of the eastern boundary of Colorado and far from the mountain uplift.

The Midwest's well near Rangely that was reported a big gasser last week is now going to oil and is making small flows considered good for 20 bbls. daily. This well is a deep test in an area where there has been shallow production from the shale for several years past and it seems to have discovered the "mother pool" that fed the wells of the shallow field. The location is on Section 30-2-102, in Rio Blanca County, Colorado.

The Fort Collins and Wellington Fields in North Central Colorado are assuming considerable activity after the winter. The Union Oil Co. of California has about four wells that should be in the sand within a month and other companies have six wells that may be completed within two months. As this is a deep drilling proposition where the wells are likely to take a year or more to drill, the bringing in of a large number of wells in a few weeks is found to stimulate activities if the wells come in producers.

### Flowing Through Bean

The two producing wells of the Union of California are good for better than 2,000 bbls. daily. Just how much better is not known because the wells are flowed through a small bean and this retards the production considerably. A bean is a small hole in a steel plate, the plate being welded in a length of tubing or pipe. The idea is to keep a pressure upon the well so that the sand is not liable to cave in and also this retarded flow keeps an equalized pressure on the casing at all times and prevents any collapse of the pipe when the well flows and creates a partial vacuum at the bottom of the hole at the end of the surge. As they stand these wells are producing close to 2,000 bbls. daily and it appears this amount is all the Union officials consider safe to let the wells flow at present. This oil is coming to Casper and some goes to Florence, Colo., for refining.

In the Colorado operations there is little of interest outside of the Fort Collins district. Iles and the Moffat Field are not showing up for anything large this season. The Midwest Refining Co.'s No. 2 on the Iles is in the sand and making oil at a depth of 2,650 feet from a stray sand. In the Fort Collins operations the Union Oil Co. of Colorado ,a local firm that is putting down a test on the side of the Wellington structure, is at 4,540 feet and making hole slowly. The Dakota sand is expected here about 4,700 feet though some authorities place its depth at this location at 5,000 feet. The Union Oil Co. of California is fishing for a lost lug on the Douglas Lake test that seems to be a dry hole and the same company has the hole on the Scott lease, Section 6-9-68 on the Wellington structure at 3,517 feet. The well on the Hess farm is at 3,900 feet. on Section 32-10-68. The Wellington No. 2 is at 3,670 feet on Section 31-10-68 and the well on State land is shut down temporarily at 3,670 feet on Section 36-10-69.

### Fremont Dome

The Mack Oil Co.'s well, drilling on the Sheldon Dome in Fremont County, Wyoming, about 50 miles north of Riverton is shut down at present with the hole at 2,000 feet and the well is gradually increasing the gas and oil production. This well found a showing of gas in the Frontier sand that later began showing oil and now the well appears to be turning into an oil producer of commercial size.

### Field Runs for the Week

| | |
|---|---|
| Salt Creek | 58,850 |
| Teapot | 2,260 |
| Big Muddy | 3,210 |
| Grass Creek | 4,600 |
| Elk Basin | 1,300 |
| Greybull | 15 |
| Rock Creek | 3,280 |
| Lance Creek | 590 |
| Poison Spider | 120 |
| Osage | 340 |
| Hamilton Dome | 460 |
| Lander | 250 |
| Byron | 100 |
| Pilot Butte | 30 |
| Lost Soldier | 4,380 |
| Ferris | 50 |
| Fort Collins | 1,160 |
| Craig | 700 |
| Florence | 240 |
| Boulder | 25 |
| Tow Creek | 170 |
| Rangeley | 100 |
| Cat Creek | 3,275 |
| Sunburst | 3,050 |
| Artesia | 700 |
| Rattlesnake | 525 |
| Hogback | 640 |
| Miscellaneous | 900 |
| Total | 90,920 |

# Gulf Coast Oil Operations

**Gulf Coast production highest in year owing to development at South Liberty and Hull. During past week 13 completions added nearly 17,000 bbls. to output. A number of good wells were completed at South Liberty. Little change in status of salt water situation. Orange Pool also active.**

HOUSTON, Tex., March 30.—With Gulf Coast production mounting by leaps and bounds, operators are wondering when prices will crack under the strain. The estimated daily average gross output from the Gulf Coast Pools alone ending Saturday is placed at 103,975 bbls., an increase of 7,190 bbls. compared with the gross estimate for last week. One month ago the estimated daily average for the Coastal region was 72,820 bbls.

This increase of more than 30,000 bbls. in 30 days is due almost entirely to the South Liberty Pool, and big wells completed in the Hull Pool, both of these districts being in Liberty County. The Orange Pool also contributed to some extent. The present estimated daily average is the highest since March, 1923.

During the past week 13 wells added 16,915 bbls. to the gross Coastal daily average. Six of these producers were in the South Liberty Field, which also registered two dry holes. The Hull Pool contributed over 5,000 bbls. of the total and the Orange Pool 3,950 bbls.

**South Liberty Pool**

Completions during the week in the South Liberty Pool included the Navarro Oil Co. (Watts, Farrish, Collins and Crosby) and Oxford Oil Co.s No. 2 Harrison, 5½ acres, a 2,500-bbl. well at 3,525 feet. It offsets the Vacuum Oil Co.'s No. 2 Barrett south of the discovery well. It has since increased to 4,500 bbls. The Vacuum Oil Co.'s No. 3 Barrett came in flowing 2,000 bbls. at 3,555 feet. Seven joints of screen were set. The gravity is 22.5 and temperature 92 degrees. Nine joints of screen were set in the well on the Harrison. The Monarch Oil & Refining Co.'s (Peer Oil) No. 2 Harrison 5½ acres, completed at 3,596 feet, flowing 2,000 bbls. with screen set in 86 feet of sand. It is located 400 feet east from No. 1. The latter is choked down to 2,000 bbls. The Gulf Production Co.'s No. 1 Barrett is pumping 40 bbls. at 3,215 feet. It is light gravity testing 35 Baume.

The Gulf Production Co. abandoned No. 1 Hamman in shale at 3,200 feet. The Texas Co. did the same with No. 1 Monroe at the same depth. Both are far to the south of production.

The status of the wells completed last week as far as salt water is concerned is as follows: The Vacuum Oil Co.'s No. 2 Barrett is flowing intermittently. It came in originally credited with 2,500 bbls., but sanded and was cleared. Gulf Production Co.'s No. 1 Barrett on the west side is pumping 40 bbls. F. M. Long's No. 1 Andrews shows 25 per cent of sediment and water, and the Humble Oil & Refining Co.'s No. 1 Brown-Revierre 15 per cent b.s. and water.

The pool now has 13 wells in the northeast group, and one one-half mile south producing grade A oil. Three wells on the east edge are graded as class B. Four tests have been abandoned.

**South Liberty Operations**

Operations in the South Liberty Pool are as follows at the close of the week: Mills Bennett's location for No. 4 Pickett has been abandoned; No. 5 is drilling around 2,360 feet; No. 6 drilling around 2,970 feet; No. 7 drilling around 2,300 feet; No. 8 drilling around 1,100 feet; No. 2 Revierre-Brown, rigging up. The Humble Oil & Refining Co.'s No. 2 Revierre-Brown blew out and is making mud and water at 3,550 feet; No. 1-A Pickett has been abandoned at 3,760 feet; No. 2 is rigging up; No. 1-B Pickett is drilling around 1,400 feet; No. 2 and 3 rigging up; Nos. 1, 2 and 3-C Pickett rigging up; No. 2 Harrison-Pickett rigging up. The Vacuum Oil Co.'s No. 4 Harrison is drilling at 3,175 feet; No. 5 drilling at 3,310 feet; Nos. 6 and 7, derricks. The Bashara Oil Co.'s No. 1 Pickett, bailing 3,540 feet; No. 2 drilling at 2,275 feet; No. 3 rigging up. The Humble Oil & Refining Co.'s No. 1-A Hanzen is rigging up. No. 1-A Chambers a location; No. 2 drilling around 380 feet; No. 1-B rigging up; No. 2 a location; No. 1 Mitchell, a location; No. 1 Shade rigging up; Nos. 2 and 3 locations.

The Peer Oil Corp.'s No. 3 is a derrick; No. 3 is rigging up; No. 5 is a derrick; No. 6 location abandoned. The Hoffer Oil Corp.'s No. 1 Pickett is cutting screen at 3,600 feet; No. 2 is rigging up. The Sun Oil Co.'s No. 1 Shade is drilling around 3,200 feet; No. 2 is drilling around 1,150 feet; No. 3 is rigging up; No. 4 is a location. Mrs. Neils Esperson's No. 1 Baldwin is drilling around 3,300 feet. The Oxford Oil and the Navarro (formerly Farrish, Watts and Collins) Oil Co.'s No. 3 is showing oil at 3,390 feet; No. 4 is drilling around 1,100 feet; No. 5 is drilling around 750 feet; No. 6 rigging up; No. 7 derrick. The Texas Co.'s Nos. 2 and 3 are locations; No. 1 fee building derrick. Gulf Production Co.'s No. 1 A. Williams and others is drilling around 1,500 feet; No. 2 is rigging up; No. 3 a location; No. 4 rigging up; No. 1 Orgain is drilling around 2,500 feet; No. 3 a location; Nos. 1 Shade and No. 2 are rigging up; No. 3 a derrick; No. 2 Van de Venter is a location. Abercrombie and others' Nos. 1 and 2 Harrison are locations. The Rio Bravo Oil Co.'s No. 1 Duessen is a location.

**In the Pools**

The Texas Co.'s No. 1 Lingua in the Big Creek Pool is drilling around 3,772 feet. The Gulf Production Co.'s No. 17 Davis is drilling around 3,900 feet; No. 18 is drilling around 3,200 feet; No. 19 is drilling around 2,800 feet; No. 20 is drilling around 2,350 feet; No. 9 Wheat is fishing.

The Humble Oil & Refining Co.'s No. 10 T. & W. at West Columbia is fishing

(Continued on Page 119)

# IMPORTANT TEST REACHES PAY SAND IN NEW FIELD AT LOCKHART, TEXAS

SAN ANTONIO, Tex., March 30.—McClannahan & Crouch's No. 1 Brewer, at Lockhart, found the top of the pay at 1,310 feet last night and looks like as good a well as any in the field.

The Gulf Production Co.'s No. 1 Beaty, offsetting No. 1 Brewer of Lefevre & Storey, 7 miles northeast of Lockhart, in Caldwell County, was brought in March 25, flowing through the 6-inch casing at the rate of 7 bbls. an hour. Liner was set late Wednesday, March 25, and when the tools were brought out of the hole the well started flowing.

No. 1 Brewer was brougnt in on March 9 at 1,252 feet and flowed for the first day or two at the rate of about 135 bbls. and is now making around 80 bbls. The Gulf Production Co. blocked the country and leased it and gave to Lefevre & Storey the block with the well on and made the location for the No. 1 Brewer. The Gulf's test, the first offset and first new completion in the new field, set casing at 1,192 feet and topped the pay at 1,202 feet and stopped at 1,274 feet and was completed in one week from the time it was spudded in. It is believed that when tubing is set the flow will be increased as it was in No. 1 Brewer.

Operations will be accelerated by the completion of the Gulf well and that of McClannahan & Crouch, which is 1 mile to the northeast. Several additional tests have been announced. The Sun Oil Co.'s test offsetting the Brewer well to the north has been drilling for two days and will be completed this week. Armstrong a mile south, is rigging up. Davis and others have a derrick up one mile southeast. Colorado parties have signed a contract to begin drilling in 15 days on a lease 3 miles southwest of the Brewer well. Gasscocks have announced they will be drilling within a week on the west end of the H. F. Brewer tract and a little over one-half mile northwest of the discovery well.

Because the field is without precedent in this part of Texas except the small Thrall Field in Williamson County, operators are proceeding cautiously.

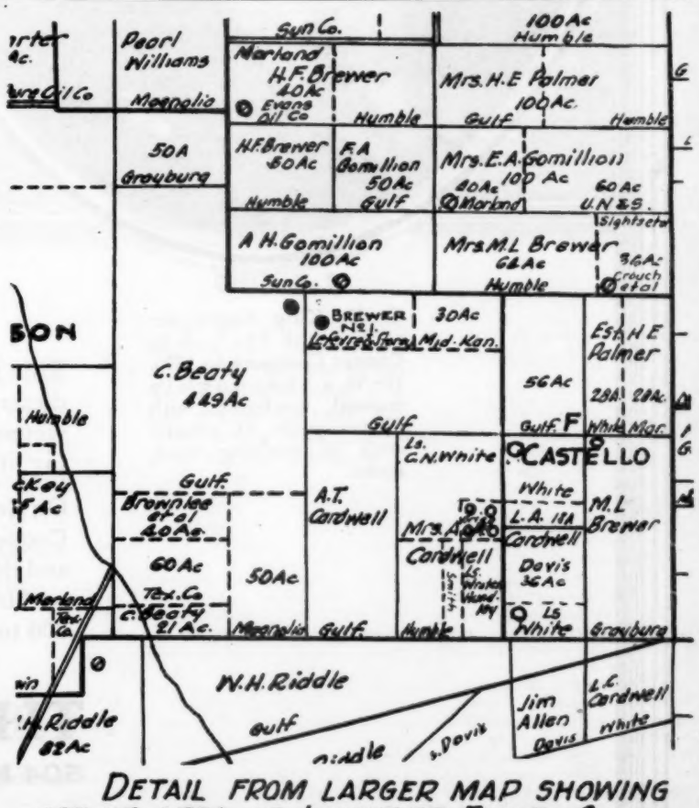
**Somerset Test**

Lefevre & Storey have topped the Austin chalk at 1,403 feet and are in the Eagle Ford at 1,725 feet in a deep test on Marland Oil Co. acreage in the Somerset shallow field. Identification of the cores indicates that the log is running high. The Eagle Ford carries a little oil as shown by the core. The well is on a block given them for the well by the Marland Oil Co. and the location for the test was made by Marland's geologist. It is in the northeast edge of the shallow field on the Binz tract and nearly straight east of the town of Somerset.

C. N. White's No. 1 Gib Springs, south of Seguin in Guadalupe County, is in the Georgetown at 2,185 feet and looking better than it has for some time. Opinions differed as to what the well was drilling in. It is now conceded that the test at 2,070 feet was in the Eagle Ford. It should test the Edwards lime within another week.

The Houston Oil Co. and Humble Oil & Refining Co. are arranging to start tests in Wilson County near Floresville. The Houston Oil Co. has its derrick up on the Manuel Barrera Survey No. 25, 5 miles south of Floresville and Humble will erect a derrick this week a few miles northeast of Floresville, where it has several thousand acres blocked. Clark & Humphreys are arranging to put up a derrick 3 miles southwest of Floresville and plan to spud in within 15 days. The Plateau Oil Co. east of Stockdale in No.

(Continued on Page 98)




DETAIL FROM LARGER MAP SHOWING ACTIVE AREA OF LOCKHART FIELD, CALDWELL CO., TEXAS
PREPARED BY ALLING BLUE PRINT CO., SAN ANTONIO.

# Charlie King and Tom Bell est
# United Fuel Gas Comp

C. E. KING

C. E. King began his service with The C. & G. Cooper Company in 1890. He is a thoroughly trained mechanic with fifteen years of experience in erecting work alone.

Ten 485 B.H.P. Cooper gas engines, operating as tw ing
pany's new Lewis Station. Four more Cooper engines sam

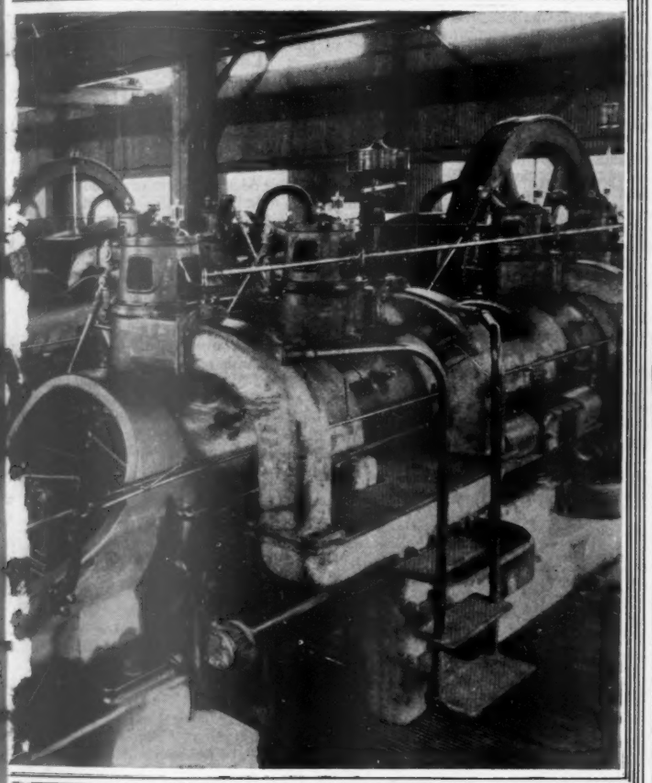
This station is eleven miles from a railroad. Six miles of this distance is over a very bad West Virginia mountain road. The wet season and resulting condition of this road delayed the hauling of the heavy engine parts until late in September.

On September 20th erecting work was begun. Ten 485 B. H. P. Cooper gas engines were lined up and assembled as twin units and the ten compressor cylinders were connected ready to operate within five weeks. The total weight of this machinery exceeds 700 tons.

**THE C. & G. COOPER COMPA**

**504 Kennedy Bldg., Tulsa, Okla.** **Los Angeles, Cal.**

# tablish erecting record at pany's Lewis Station.



ing Cooper compressors in United Fuel Gas Com- same size are to be added to this station this year.

T. H. BELL

T. H. Bell has been erecting Cooper engines for six years. He was an experienced mechanic and gas engine operator before coming with The C. & G. Cooper Company.

The experienced gas engine purchaser will learn two important facts from this accomplishment. First, Cooper erecting engineers are experienced mechanics who know how to do a good erecting job quickly. Second, Cooper standards of workmanship are so high that little time and expense are required to erect Cooper equipment in the field. Scores of oil and gas companies who buy Cooper engines year after year testify to these facts.

**PANY MT. VERNON, OHIO**

Cal. **1605 Kirby Bldg., Dallas Texas**

# North Louisiana-Arkansas

By M. L. Vaughn

**More new production in Union County area of Smackover district than for entire month previous, 6,955 bbls. Urania Petroleum Co. well in La Salle Parish blows in as a big gasser, flows at rate of 600 bbls. a day for an hour and ten minutes and sands over. New find starts rush to district.**

SHREVEPORT, La., March 30.—Production in the Shreveport and El Dorado oil territories practically held its own during the past week, a decrease of 1,420 bbls. a day in Arkansas being partially offset by an increase of 633 bbls. a day in North Louisiana, leaving the average falling off from both fields only 787 bbls. a day. Arkansas production averaged 116,555 bbls. a day, distributed as follows:

| Arkansas | |
|---|---|
| El Dorado | 9,280 |
| Nevada County | 1,420 |
| Smackover light | 31,715 |
| Smackover heavy | 72,120 |
| Stephens | 2,020 |
| Total | 116,555 |

North Louisiana production averaged 50,957 bbls. a day, with a slight increase in every district except Caddo and Homer, runs from the various districts as follows:

| North Louisiana | |
|---|---|
| Bellevue | 4,070 |
| Caddo light | 9,366 |
| Caddo heavy | 2,260 |
| Cotton Valley | 8,816 |
| De Soto and Red River | 4,200 |
| Elm Grove | 721 |
| Haynesville | 14,620 |
| Homer | 6,845 |
| Total | 50,958 |
| Total both fields | 167,513 |
| Decrease | 787 |

### New Field in La Salle?

Prospects of a new field opening in La Salle Parish has caused considerable excitement during the week, although there is still a long way to go before the character and stability of the new district have become established facts.

The well which started the excitement was drilling by the Urania Petroleum Co., an English syndicate which owns large timber lands in this territory and has been prospecting for oil for several years past. This was the sixth well drilled on the Urania lease and the sixth test in La Salle Parish, one of which, drilled by the Stovall Drilling Co., blew in as a big gasser but went dead after flowing wild for only a few days.

The Urania well blew in unexpectedly at a depth of 1,511 feet, flowed for 1 hour and 10 minutes at the rate of 600 bbls. a day then sanded over and is still dead at the present writing. The oil testes 21 gravity. Storage is being provided. When liner is pulled and screen set an effort will be made to bail the well back in.

The nearest town of any considerable size to the new producer is Winnfield, in Parish, lying 20 miles west and a little north of the Urania well, and already Winnfield is beginning to take on the appearance of a real oil town. There is a good road lying between Winnfield and the new producer, and the play in leases seems to be in this direction, a number of big deals having been closed in the area west of the Castor River. Scouts and operators from far and near have congregated in Winnfield and are awaiting the outcome of the new well and rigs are coming in from other territories to be ready to get on the new locations as soon as deals now pending have been closed and titles proven.

### Rush to Urania

A trainload of men, equipment and materials have been sent from Monroe to Urania, the nearest town on a railroad, and have started work on a sidetrack for the Missouri Pacific Railroad to extend from Urania to the well, a distance of 1½ miles. The Urania Lumber Co. owns in the neighborhood of 5,000 acres in the vicinity of the new well and Senator Henry P. Hartner of Alexandria, La., who also owns a large tract in this neighborhood, is laying out a small townsite just a short distance from the new development.

Urania itself, a tiny lumber village, is evidencing the usual mushroom growth of an oil field town and shacks of all kinds are being put up for the accommodation of new comers, but a majority of the visitors to the new field are making their headquarters at Monroe, Winnfield or Alexandria.

Love Brothers, well-known operators in the Louisiana and Arkansas Fields, have secured a 40-acre lease from Dr. D. W. Kelly, in Section 14-10-1e, and will start a test at once on a 50-50 basis. The test is 3 miles west of the Urania well. Derrick is up for a well to be drilled by Zeigin and others on the Urania Lumber Co. lease in Section 18-10-2, offsetting the discovery well, and another will be drilled by the same interests on a 40-acre tract owned by J. W. Smith, a Monroe architect, one-half mile north of the well. Many of the carbon black operators from the Monroe Field are coming down to the new territory with the intention of drilling if the outlook continues encouraging. The Bur Ban Oil & Gas Co., already operating in this territory, will abandon its present location, and move to a location near the discovery well.

### Completions—Union County, Arkansas

There was more new production obtained in the Union County area of the Smackover Field during the past week than for the entire month previous, completions numbering 17, with only one failure and an aggregate initial production of 6,955 bbls.

The Arkansas Fuel Oil Co. completed No. 6 LaGrone, Section 1-16-17, pumping 60 bbls. at 2,290 feet.

Crawford & Sebastian's No. 8 Giller, Section 14-16-15, is pumping 100 bbls. at 2,006 feet.

Dyer Brothers completed No. 4 on the Stout Lumber Co. lease, Section 31-15-16, pumping 50 bbls. at 2,250 feet.

Gulf Refining Co. completed three wells on the Hardy-Murphy lease, all in the deep sand in the Smackover district, their initial production amounting to 3,800 bbls. No. 7 in Section 5-16-15, is flowing 1,200 bbls. at 2,369 feet; No. 9 in Section 3-16-15, flowing 800 bbls. at 2,356 feet, and No. 12, same section, flowing 1,800 bbls. at 2,353 feet. The Gulf also completed two wells on the Lewis Werner lease, No. 29 in Section 6-16-16, pumping 35 bbls. at 2,262 feet, and No. 34, in Section 5-16-16, pumping 30 bbls. at 2,255 feet.

Humble Oil & Refining Co.'s No. 6 Pate in Section 10-16-15, another well in the deep sand, is flowing 750 bbls. at 2,387 feet.

Falls and others abandoned their deep test on the Johnson lease, Section 1-18-17 at 3,040 feet.

Lion Oil & Refining Co. completed two deep wells, No. 2 Bilyew, Section 8-16-15, flowing 500 bbls. at 2,520 feet, and No. 1 Hays, Section 4-16-15, flowing 1,200 bbls. at 2,346 feet.

Phillips Petroleum Co. completed No. 9 Giller, Section 11-16-15 pumping 100 bbls. at 1,996 feet, and No. 10 Giller, same section, pumping 125 bbls. at 1,994 feet.

Pure Oil Co.'s No. 11 Craig, Section 15-16-15, made a 35-bbl. pumper at 2,025 feet.

Sam Richardson completed Murphy M-1, Section 14-16-15, flowing 50 bbls. at 2,013 feet.

Rutledge Trustee completed No. 5 Hodges, Section 6-16-16, pumping 120 bbls. at 2,262 feet.

### Ouachita County

Operations in Ouachita County resulted in 12 completions with 11 producing wells having an aggregate initial production of 1,759 bbls., and only one failure.

Bray-Hawthorne tested dry at 2,535 feet in No. 1 Elliott, Section 11-15-17, and the well was abandoned.

El Dorado Union Oil Co. completed No. 3 La Grone, Section 36-15-17, pumping 25 bbls. at 2,273 feet.

Guy Freeling's No. 2 Gibson in Section 26-15-17, made a 90-bbl. pumper at 2,325 feet.

Gulf Refining Co. completed No. 6 Hardin, Section 28-15-16, pumping 50 bbls. at 2,317 feet.

Hunt and others' completed No. 2-A Myatt, Section 22-15-17, making a 60-bbl. pumper at 2,407 feet.

D. N. Johnson's No. 3 Hicks, Section 27-15-16, made a 50-bbl. pumper at 2,285 feet.

Kelly and others completed No. 1 Wells, Section 23-15-17, making 30 bbls. of oil and 1,000,000 feet of gas at 2,307 feet.

Leon and others No. 2 Berg, Section 4-16-15, flowing 1,200 bbls. at 2,342 feet.

Penguin Oil Co.'s No. 1 Hardin, Section 27-15-16, made a 50-bbl. pumper at 2,269 feet.

The Texas Co. completed No. 4 Johnson, Section 34-15-15, pumping 75 bbls. at 1,964 feet.

Timberlake and others completed No. 2 Hodges, Section 26-15-17, pumping 45 bbls. at 2,348 feet.

Whittiken and others completed No. 2 Hodges, Section 26-15-17, pumping 45 bbls. at 2,316 feet.

### Cotton Valley

Five producers were completed during the week in the Cotton Valley district, adding 625 bbls. to the output of the field.

Humble Oil & Refining Co. completed No. 13-B Bodcau, Section 28-21-10, pumping 155 bbls. at 2,572 feet.

Louisiana Oil Refining Corp. completed two wells on the Gray lease in Section 28-21-10, No. 3 pumping 150 bbls. at 2,580 feet and No. 4 pumping 150 bbls. at 2,582 feet.

Ohio Oil Co. completed two producers on the Bodcau lease, No. 19, Section 15-21-10, making a 130-bbl. pumper at 2,529 feet and No. 21, Section 27-21-10, pumping 40 bbls. at 2,564.

### Bossier Parish

G. W. Wetherbee got salt water at 2,683 feet in No. 1 Holland, Section 4-22-11, and the test was abandoned. The well is in the north end of the parish in the Springhill district.

### Bellvue Field, Bossier Parish

Humble Oil & Refining Co. completed No. 28 Roy, Bliss and Wetherbee, Section 15-19-11, pumping 10 bbls. at 394 feet and in same section, Bliss & Wetherbee 20-A, pumping 10 bbls. of oil and 250 bbls. of salt water at 421 feet.

Dixie Oil Co. abandoned No. 1 Johnson, Section 34-19-11, at 750 feet.

### Caddo Parish

In the south end of the Elm Grove gas field, The Texas Co. got salt water at 3,027 feet in No. 3 Huron Land Co., Section 8-15-22, and the test was abandoned.

### Claiborne Parish

El Dorado Chief Oil Co. abandoned its test on the McElwee lease in Section 13-22-7, 8 miles north of Homer, at 3,040 feet.

### Morehouse Parish

Natural Gas Producing Co. completed No. 15 Crossett, Section 20-22-5, making 22,000,000 feet of gas at 2,267 feet.

### Ouachita Parish

Southern Carbon Co. completed No. 45 fee, Section 11-19-4e, making 14,000,000 feet of gas at 2,200 feet.

### Union Parish

Simms Oil Co.'s No. 1 James, Section 16-22-3w, went into salt water at 3,148 feet and was abandoned.

### Columbia County, Arkansas

Arkansas Fuel Oil Co. tested dry at 3,105 feet in No. 1 W. E. Hardy, Section 1-19-22, and the well was abandoned.

Magnolia Petroleum Co. junked the hole in No. 2 Watson, Section 36-15-20, and the well was abandoned at 3,460 feet.

### Miller County

J. K. Wadley tested dry at 1,800 feet in No. 1 Thompson, Section 33-14-28, and the test was abandoned.

### Nevada County

In the Nevada County district, Ames and others completed No. 2 Womack, Section 10-14-21, making a 150-bbl. pumper at 1,193 feet.

A wildcat test on the Shell lease in Section 12-15-23, drilled by Garrell and others tested dry at 1,155 feet and was abandoned.

### Webster Parish

In the Springhill district, in the north end of Webster Parish, Oil Fields Gas Co. completed No. 2 Jordan-Young, Section 34-23-10, making 45,000,000 feet of dry gas at 2,655 feet, and No. 1 Simpson, Section 3-22-10, making 35,000,000 feet of gas at 2,636 feet.

Palmer & Blount got salt water in No. 1 Mason, Section 20-18-10, a test in the south end of the parish, between Shreveport and Minden, and the well was abandoned at 1,520 feet.

### Drilling Operations
### Union County, Arkansas

Drilling is still increasing in the Union County area as evidenced by eight new locations, 107 wells drilling, and 47 new derricks.

Amerada Petroleum Corp. set 10-inch casing at 448 feet in No. 2 Calloway, Section 4-16-15, and drilling at 1,200 feet; rigging up Nos. 3, 4 and 5, same section; Arkansas Fuel Oil Co. coring at 2,355 feet in No. 4 Ferguson, Section 6-16-15; set 6-inch casing at 2,226 feet in No. 7 LaGrone, Section 1-16-17, and derrick up for No. 8 LaGrone, Section 8-16-15, set 10-inch casing at 102 feet in No. 2 Scott, Section 8-16-15, and drilling at 1,037 feet.

Barnsdale and Foster are arranging to deepen from 2,127 feet No. 4 J. Murphy, Section 17-16-15, formerly completed making 500 bbls. of oil; Bradley and Cazart drilling No. 1 Pate, Section 15-17-17, at 2,260 feet; Broderick and Calvert set 4-inch casing at 2,484 feet in No. 1 Murphy, Section 8-16-15, flowing 2,000 bbls. of fluid of which 90 per cent is salt water, with 9 feet of sand in the hole at 2,459 feet.

J. W. Clark is pulling to deepen from 2,100 feet in No. 1 Palmer, Section 9-16-15; set 10-inch casing at 502 feet and drilling at 600 feet No. 3 Palmer, same section; Coates and Sowell set 10-inch casing at 490 feet in No. 1 Bilyew, Section 8-16-15, and drilling at 600 feet; rigging up No. 2 Bilyew, same section. Sam Cook is rigging up No. 1 Murphy, Section 9-16-15.

Crawford and Sebastian are drilling at 2,275 feet in No. 5 Graves, Section 3-16-15; set 6-inch casing at 2,336 feet in No. 6 Graves, same section and have

derrick up for No. 6 James, Section 6-16-15.

Crusader Oil Producing Co. set 4-inch casing at 2,338 feet in No. 5 Graves, Section 3-16-15; H. L. Dale has derrick up for No. 2 LeCroy, Section 17-16-15; W. A. Dellmeyer has 400 feet of oil in the hole with 600 feet of sand in No. 1 Ezell, Section 13-17-15, and waiting orders at 2,212 feet.

Eason and others are drilling No. 1 Palmer, Section 9-16-15, at 170 feet; rigging up Nos. 2, 3 and 4, same section.

Federal Petroleum Co., is waiting on standard rig with 1,500 feet of oil and 14 feet of sand in the hole at 2,650 feet in No. 3 Childs, Section 8-16-18, and made location for No. 4 Childs, same section; set 10-inch casing at 500 feet in No. 5-J, Section 8-16-15, and drilling at 560 feet now; rigging up No. 7-A Lawton, Section 10-16-15.

W. H. Gilliland is drilling No. 2-A Hodges, Section 8-16-16, at 1,900 feet; Grimes and Jones bailing 6-inch casing at 2,160 feet in No. 8 Van Hook, Section 7-18-14.

**Gulf Company Operations**

Gulf Refining Co. set 10-inch casing at 296 feet in No. 8 J. H. Alphin, Section 10-16-15, and in No. 9 J. H. Alphin, same section; rigging up No. 5 LeCroy, Section 16-16-15; set 10-inch casing at 580 feet in No. 6 Berry, Section 8-16-15; drilling No. 9 Flannigan at 60 feet, Section 5-16-15, and rigging up No. 2 Holloway, Section 6-16-16; set 10-inch casing at 295 feet in No. 14, Hardy Murphy, Section 4-16-15, and drilling at 850 feet; in Section 5-16-15 derrick is up for No. 15 Hardy Murphy; drilling No. 2 J. C. Murphy at 1,740 feet in Section 9-16-15; arranging to deepen No. 8 Murphy, same section, from 2,045 feet; formerly completed a 12,000,000 gas well with a spray of oil at 2,045 feet; derrick up for No. 11 Murphy, same section; drilling gray sand at 3,017 feet in No. 31 L. Werner, Section 5-16-16; set 6-inch casing at 2,224 feet in No. 38 L. Werner, Section 5-16-16.

Hickman and others are drilling at 2,050 feet in No. 9 Graves, Section 3-18-15; set 10-inch casing at 470 feet in No. 10 Graves, same section; tested salt water at 2,369 feet in No. 8 Giller, Section 10-16-15; set 4-inch casing in this well at 2,369 feet, with 2 feet of sand in the hole at 2,398 feet; set 6-inch casing at 1,941 feet in No. 9 Giller, Section 10-16-15.

Houston Oil Co. is drilling a rock at 1,865 feet in No. 5 Miller, Section 3-16-15; drilling rock at 2,310 feet in No. 1 Parks, Section 8-16-16; Humble Oil & Refining Co. drilling at 1,800 feet in No. 4 Flenniken, Section 3-16-15; rigging up No. 2-B A. Flenniken, Section 9-16-15; rigging up Nos. 3-B, 4-B and 5-B, same section; drilling at 2,381 feet in No. 5 Pate, Section 10-16-15.

Imperial Oil & Gas Producing Co. is drilling at 1,300 feet in No. 2 Murphy, Section 9-16-15; set 15-inch casing at 58 feet, 10-inch casing at 505 feet and drilling now at 600 feet in No. 3 Murphy, Section 9-16-15; rigging up Nos. 4 and 6, same section.

Johnson Drilling Co. junked No. 1 Anderson, Section 1-16-17, at 980 feet, and moved 25 feet west, setting 10-inch casing at 61 feet; E. M. Jones rigging up Nos. 1, 2, 3, and 4 Cook in Section 16-16-15; Keene and Woolf drilling at 2,340 feet in No. 1 J. S. Murphy, Section 9-16-15; derricks up for Nos 2, and 3 J. S. Murphy, same section.

Kinnebrew and others set 10-inch casing at 482 feet in No. 5 Williams, Section 3-16-15, and drilling at 600 feet; Liberty Oil Co. is fishing for 5 joints of drill stem at 2,308 feet in No. 1 Davis, Section 31-16-14.

Lion Oil & Refining Co. set 4-inch casing at 2,433 feet in No. 5 Flenniken, Section 10-16-15; derrick up for No. 6 Flenniken, same section; set 10-inch casing at 522 feet in No. 7 Graves, Section 3-16-15, and drilling at 1,700 feet; derricks up for Nos. 3-B, 5-A and 6-A Lawton, Section 10-16-15.

Lyles and others set 10-inch casing at 506 feet in No. 7 fee, Section 3-16-15, and drilling at 870 feet.

Magnolia Petroleum Co. set 12-inch casing at 118 feet in No. 1 Chandler, Section 4-19-14, and drilling at 700 feet; set 8-inch casing at 2,268 feet in No. 1 Freeman, Section 7-16-16 and pumping cement to kill water flow at 2,638 feet in No. 3 Harris, Section 16-16-16; tested show of oil at 2,092 feet in No. 4 Powell, Section 19-16-15, and bailing 14 feet of broken sand at 2,094 feet.

Mazda Oil Co. is drilling at 2,150 feet in No. 1-D Lawton, Section 10-16-15; Murdock and others rigging up No. 4 Bilyew, Section 8-16-15; O. G. Murphy rigging up No. 3 Murphy, Section 9-16-15.

Natural Gas & Petroleum Co. is rigging up Nos. 2 and 3 Bilyew, Sections 9-16-15; derrick up for No. 4 Bilyew, same section; set 12-inch casing at 58 feet in No. 5 Bilyew, same section, and drilling at 200 feet; set 4-inch casing at 2,445 feet in No. 6 Murphy, Section 8-16-15; derrick up for No. 2 Stacy-Lawton, Section 9-16-15; in Section 8-16-15, derricks up for Nos. 7 and 3-D Murphy, and in Section 9-16-15; rigging up No. 2-E Murphy and 2-F Murphy; drilling No. 3-A Oran, Section 5-16-15, at 1,400 feet, and same section rigging up No. 2-B Oran; rigging up No. 1 J. Murphy, Section 9-16-15.

Ohio Oil Co. is waiting on standard rig with 26 feet of broken sand in the hole at 1,982 feet in No. 3 Ballard, Section 14-16-15; drilling at 1,425 feet in No. 3 S. Murphy, Section 8-16-15; drilling at 680 feet in No. 4 S. Murphy and rigging up No. 5 S. Murphy, all in Section 8-16-15; drilling at 2,282 feet in No. 6 Pate, Section 10-16-15; rigging up No. 7 Pate, same section and No. 8 Pate is rigged up.

Owen Trustee is rigging up No. 2 Edwards, Section 16-16-15; Page and others set 10-inch casing at 525 feet in No. 5 Murphy, Section 7-16-15, and drilling at 1,246 feet; Phillips Petroleum Co. set 12-inch casing at 82 feet in No. 8 Giller, Section 10-16-15, and drilling at 1,710 feet.

**Pure Oil Company's Activity**

Pure Oil Co. is coring at 2,364 feet No. 1 Bilyew, Section 8-16-15; tested salt water at 2,450 feet in No. 1 Dumas, Section 16-16-15, and plugged back to 2,452 feet; Ramage, A. H., set 10-inch casing at 520 feet in No. 4-C Lawton, Section 10-16-15; rigging up No. 2 Cook, and derrick up for No. 3 Cook, both in Section 16-16-15.

Ray Drilling Co. set 4-inch casing at 2,373 feet in No. 2 Tatum, Section 7-16-15; Sam Richardson set 10-inch casing at 447 feet in No. 3 Lawton, Section 10-16-15.

Roxana Petroleum Corp. has derrick up for Nos. 1 Bilyew, and No. 2 Hardy-Murphy, in Section 9-16-15; reaming to bottom at 2,360 feet in No. 1-A C. Flenniken, Section 8-16-15; set 17-inch casing at 29 feet and 12-inch casing at 513 feet in No. 2-B Flenniken, Section 5-16-15; derricks up for Nos. 2-C and 3-C Flenniken, Section 8-16-15; set 12-inch casing at 501 feet in No. 1 Hardy-Murphy, Section 9-16-15, and drilling at 1,036 feet; drilling at 2,372 feet in No. 2 T. D. Murphy, Section 7-16-15.

Russell and others are fishing drill stem at 400 feet in No. 1 Brown, Section 8-17-14; Shreveport Oil Corp. is drilling at 2,265 feet in No. 1-A Murphy, Section 9-16-15; and derrick up for No. 2-B same section.

Simms Oil Co. has derrick up for Nos. 1 and 4 Cook, Section 16-16-15; Smitherman-McDonald set 6-inch casing at 1,953 feet in No. 1 Hicks, Section 23-16-16, and drilling at 1,981 feet.

**Standard Company's Operations**

Standard Oil Co. is bailing to test 49 feet of broken sand at 2,007 feet in No. 17 J. H. Alphin, Section 2-16-15; set 10-inch casing at 468 feet in No. 18 J. H. Alphin, Section 3-16-15, and derrick up for No. 20 J. H. Alphin, same section; derrick up for No. 3 M. W. Hardy, Section 9-16-15; drilling shale at 1,500 feet in No. 6 M. W. Hardy, Section 4-16-15 and set 10-inch casing at 435 feet in No. 11 McClanahan, Section 6-16-15.

Sun Oil Co. is drilling at 1,990 feet in No. 3 Hays, Section 3-16-15, and rigging up No. 8 Hays, same section; drilling at 317 feet in No. 5 Hatfield, Section 6-16-15.

Sunny Jim Oil Co. set 10-inch casing at 504 feet in No. 4 Flenniken, Section 9-16-15, rigging up Nos. 5 and 6 Flenniken, same section; Staves and others rigging up No. 1 Cook, Section 16-16-15; and Nos. 1 and 2 Murphy, Section 9-16-15; Sure Oil Corp. set 10-inch casing at 505 feet in No. 4 Flenniken, Section 5-16-15; and made locations for Nos. 5 and 6 Flenniken, same section.

The Texas Co. set 10-inch casing at 259 feet in No. 6 Alphin, Section 3-16-15 and drilling at 487 feet; fishing liner and block at 2,002 feet in No. 4 Calloway, Section 4-16-15; rigging up No. 4 Hays, Section 4-16-15; drilling No. 6 Graves, Section 3-16-15, at 2,002 feet; Drilling No. 7 Graves, same section, at 2,067 feet; set 10-inch casing in Nos. 8 and 9 Graves, Section 3-16-15.

Tidal Osage Oil Co. has derrick up for No. 5 Vestal in Section 17-16-15; United Central Oil Corp. rigging up No. 4 Murphy, Section 8-16-15; Unity Petroleum Co. lost 4-inch casing seat at 2,363 feet in No. 6 Roper, Section 3-16-15, will try to pull 4-inch and reset on cap; lost 8-inch casing seat at 2,342 feet in No. 7 Roper, Section 3-16-15, and coring at 2,369 feet.

Webb Oil Corp. is waiting on standard rig with 8 feet of sand in the hole at 2,042 feet in No. 1 Adcock, Section 22-16-15; Nye Wilson is drilling at 2,030 feet in No. 5 Hays, Section 4-16-15.

**Ouachita County, Arkansas**

H. E. Clark is drilling at 1,980 feet in No. 3 Hodges, Section 26-15-17; rigging up No. 4 Smith, same section; Cumberland Petroleum Co. rigging up No. 1 Elliott, Section 23-15-17; set 10-inch casing at 61 feet in No. 6 Reynolds, Section 23-15-17, and drilling at 1,700 feet.

Eberhardt and others are waiting on standard rig with 700 feet of oil in the hole and 50 feet of sand at 2,347 feet in No. 1 Gibson, Section 27-15-17; El Dorado Union Co. set 10-inch casing at 61 feet in No. 4 LaGrone, Section 36-15-17, and drilling at 1,850 feet; rigging up No. 2 Umsted, Section 4-16-15.

Ellis & Dumas are fishing for bailer with 12 feet of sand in the hole at 2,265 feet in No. 5 Forest City Box Co., in Section 31-15-16; Forest Oil Co. is rigging up No. 1 Arnold, Section 26-15-16; set 6-inch casing at 2,165 feet in No. 16 Cramer, Section 22-15-16; derrick up for No. B-2 Lewis, Section 26-15-16; waiting on standard rig with 200 feet of oil and 9 feet of sand in the hole at 2,296 feet in No. 5 Minor, Section 29-15-16.

Guy Freely is rigging up No. 3 Gibson, Section 26-15-17; George & Jones, drilling at 1,020 feet in No. 4 Umsted, Section 4-16-15; rigging up to deepen from 2,016 feet No. 2 Umsted, same section; drilling at 1,700 feet No. 5 Umsted, also in Section 4-16-15.

Giles and others set 10-inch casing at 58 feet in No. 2 Neely, Section 25-15-16, and drilling at 900 feet; Gilliland Oil Co. set 6-inch casing at 2,566 feet in No. B-5 Myar, Section 30-15-16, and drilling at 2,594 feet; Gladys-Belle Oil Co., washing to bottom from 2,548 feet No. 1 Neely, Section 23-15-16; Gray and others bailing to test 21 feet of sand at 2,256 feet in No. 4 Myar, Section 32-15-16.

**Work by Gulf Co.**

Gulf Refining Co. is drilling back at 1,156 feet in No. 3 R. Bennett, Section 33-15-15; whipstocking casing at 1,800 feet in No. 1 R. Bennett, same section; drilling red gumbo at 2,730 feet in No. 1 Burkett, Section 7-15-16; drilling shale at 2,150 feet in No. 6 B. Goodwin, Section 32-15-15; losing returns at 2,000 feet in No. 3 J. Goodwin, Section 5-16-15; waiting on standard rig with 6 feet of sand in the hole at 2,311 feet in No. 5 Hardin, Section 28-15-16; set 10-inch casing at 301 feet in No. 13 Hardy-Murphy, Section 4-16-15, drilling at 589 feet; set 10-inch casing at 97 feet in No. 5 Reynolds, Section 23-15-17, and drilling at 1,155 feet now; have moved rig off of No. 37 Werner, Section 32-15-16; waiting on standard rig with 1,200 feet of oil and 6 feet of sand in the hole at 2,308 feet in No. A-12 Werner, Section 26-15-17; set 10-inch at 98 feet in No. A-14 Werner, Section 36-15-17, and drilling at 1,154 feet.

Hall & Williams are drilling at 2,116 feet in No. 1 Fincher, Section 29-15-16; Holloway and others set 8-inch casing at 1,938 feet in No. 1 Murphy, Section 2-16-15; Houston Oil Co. is drilling gumbo at 1,615 feet in No. 6 Hinton, Section 5-16-15; set 12-inch casing at 524 feet in No. 10 B. T. Laney, Section 31-15-15.

Howell and others are drilling at 2,238 feet in No. 2 Williams, Section 3-16-15; J. K. Hughes is washing to bottom from 2,240 feet in No. 2 Reeves, Section 28-15-16; Humble Oil & Refining Co. drilling at 1,877 feet in No. B-2 Berg, Section 30-15-15; drilling at 2,093 feet in No. 5 Flannigan, Section 6-16-15; set 10-inch casing at 487 feet in No. 6 Flannigan, same section, and drilling at 880 feet; rigging up No. 3 F. Murphy, Section 3-16-15; set 10-inch casing at 510 feet in No. 6 Umsted, Section 5-16-15, and drilling now at 1,175 feet; set 10-inch casing at 493 feet in No. 7 Umsted, same section, and drilling at 1,895 feet.

R. L. Hunt and others set 6-inch casing at 2,290 feet in No. B-8 Halton, Section 26-15-17; set 10-inch casing at 61 feet, and 6-inch casing at 2,275 feet in No. B-9 Halton, same section; set 10-inch casing at 58 feet in No. A-5 Myatt, Section 22-15-17, and drilling at 650 feet; set 10-inch casing at 50 feet and 6-inch casing at 2,278 feet in No. 2 Street, Section 26-15-17.

**Imperial Oil & Gas**

Imperial Oil & Gas Co. set 10-inch casing at 560 feet in No. 5 McClanahan, Section 6-16-15; Invaders Oil Co. is fishing for bit at 1,240 feet in No. 2 Hardin, Section 22-15-16; Langston and others made location for No. 1 Alley, Section 25-14-19; Leon and others set 10-inch casing at 500 feet in No. 3 Berg, Section 4-16-15, and drilling at 720 feet; rigging up No. 4 Berg, same section; derricks up for Nos. 5 and 6 Berg, Section 4-16-15.

Louisiana Oil Refining Co. and others set 6-inch casing at 2,280 feet in No. 1 Myatt, Section 22-15-17; set 10-inch casing at 102 feet in No. 2 Myatt, same section, and drilling at 400 feet.

Lion Oil & Refining Co. is rigging up No. 2 Hays, Section 4-16-15; Magnolia Petroleum Co. tested salt water with showing of oil at 2,303 feet in No. 2 Bettie Clawson, Section 35-15-17, and plugged back 2 feet.

Marine Oil Co. is drilling at 1,400 feet in No. 5 Hays, Section 4-16-15; drilling at 1,640 feet in No. 5 Umsted, Section 5-16-15; McCorkle and others bailing 16 feet of broken formation at 2,307 feet in No. A-2 Smith, Section 25-15-17; J. H. Meek, trustee, drilling at 1,698 feet in No. 9 McKenzie, Section 36-15-16.

Murdock and others are waiting on standard rig with 16 feet of sand in the hole at 2,328 feet in No. 1 Riley, Section 22-15-17; Penguin Oil Co. drilling at 2,058 feet in No. 3 Hardin, Section 27-15-16; derrick up for No. 4 Hardin, same section, and arranging to deepen No. 1 Umsted, Section 4-16-15, from 1,998 feet.

Pure Oil Co. set 12-inch casing at 67 feet in No. 2 Cunningham, Section 30-15-15, and drilling at 1,350 feet; J. D. Reynolds set 6-inch casing at 1,876 feet in No. 1 Berg, Section 27-15-17; plugged back to 2,756 feet in No. 5 Ward, Section 25-15-17; tested salt water at 2,558 feet in No. 1 Berg, Section 13-15-17, and plugging back to 2,258 feet.

Riggs and others are swabbing to test 50 feet of broken sand at 2,361 feet in No. 1 Hildreth, Section 22-15-17.

**Roxana's Operations**

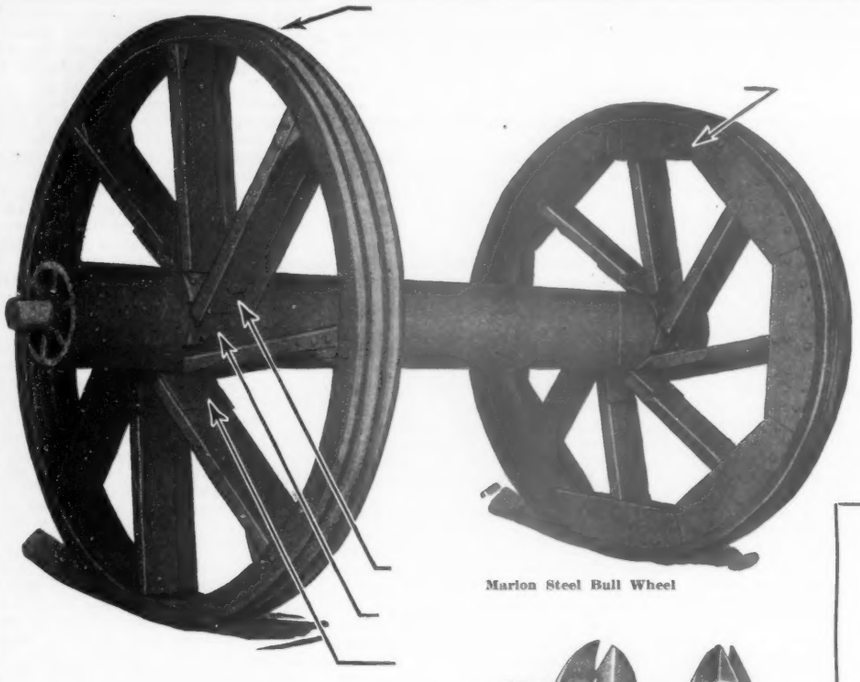
The Roxana Petroleum Corp. is rigging up No. 3 Snyder, Section 35-15-15; set 12-inch casing at 475 feet in No. 3 Umsted, Section 4-16-15, and drilling at 581 feet.

The Shreveport Oil Corp. is drilling at 2,150 feet in No. 2 Umsted, Section 4-16-15; Simms Oil Co. is repairing rig at 2,004 feet in No. E-4 Berg, Section 30-15-15.

Standard Oil Co. of Louisiana is drilling at 304 feet in No. 3 R. Bennett, Section 36-15-15; drilling in hard rock at 2,070 feet in No. 2 George Powell, Section 34-15-15; drilling at 1,500 feet in No. 13 Umsted, Section 30-15-15; 200 feet in No. 14 Umsted, Section 32-15-15, and rigging up No. 15 Umsted, same section.

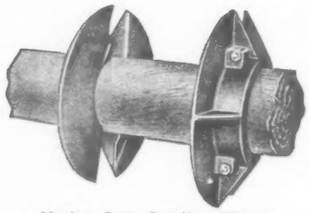
The Sun Oil Co. set 6-inch casing at 2,180 feet in No. 5 Hardin, Section 27-

(Continued on Page 92)

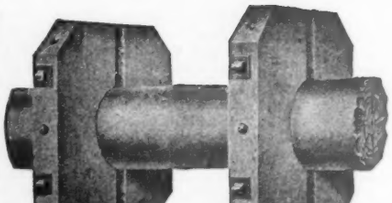


Marion Steel Bull Wheel

Marion Steel Band Wheel



Marion Iron Spooling Flange



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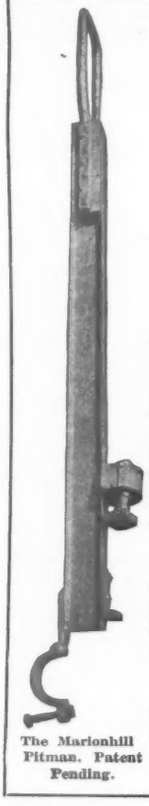


The Marionhill Pitman. Patent Pending.

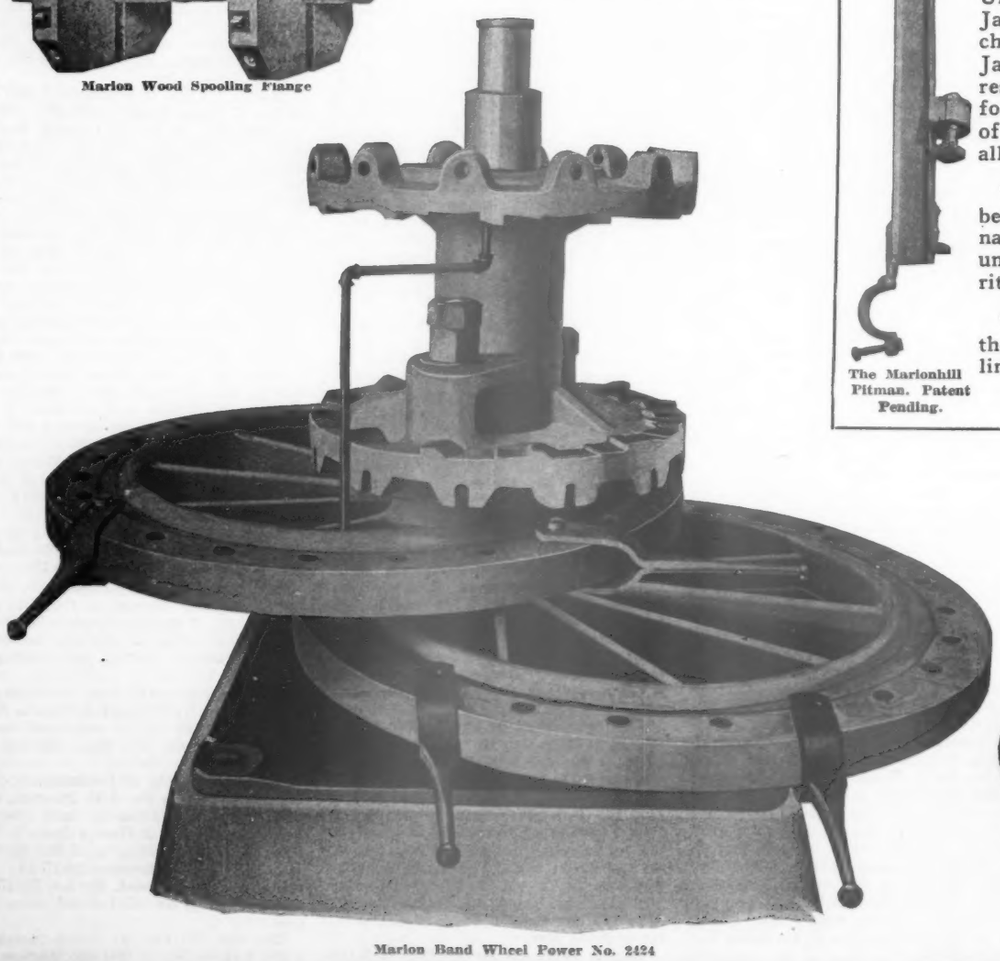
THE MARION LINE

## The Family Reunion

Remember 'way back in the days when the family reunions were so popular—Uncle Bill with his long whiskers—Cousin Jasper with his horse-shoe mustache checked trousers and Prince Albert—Aunt Jane solicitously caring for half a dozen restless children—all the kith and kin from forty miles around met and had the time of their lives and immediately after dinner all had their "pictures took?"

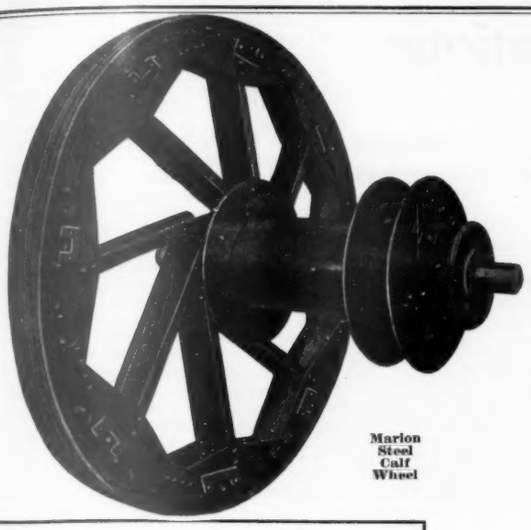
These older generations had a right to be proud of their numbers and the family name. Their name was the trade mark of unselfish devotion, progress and integrity.

The trade-mark "The Marion Line" is the family name for a large and complete line of oil well equipment of high merit.

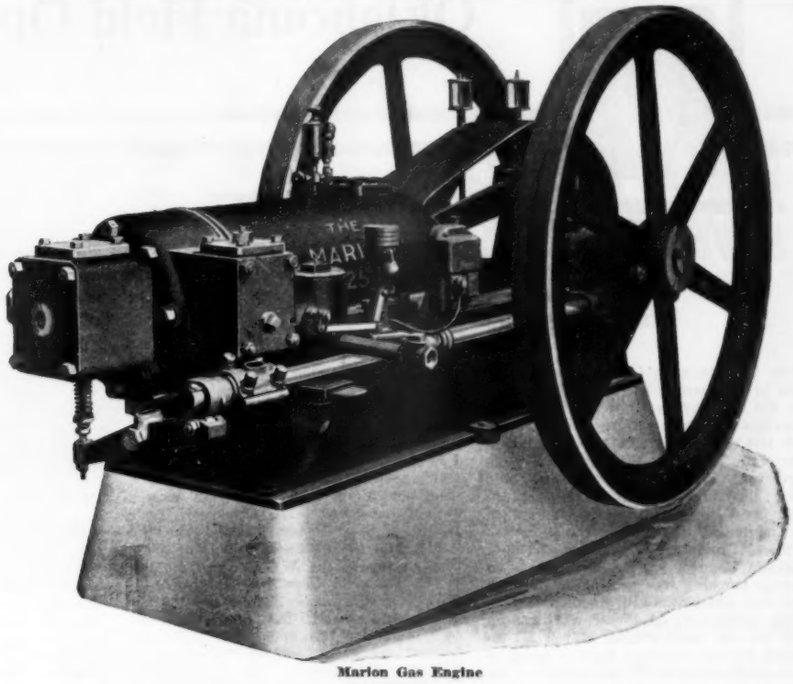


Marion Band Wheel Power No. 2424

Marion Steel Pony Wheel



Marion Steel Calf Wheel



Marion Gas Engine

Twenty-three years' experience in manufacturing and developing improvements for the oil men has made the Diamond Trade-mark the symbol of progress and efficiency in this kind of machinery.

The Marionhill Pitman is the latest addition. It kills the worry, grief and expense of the old style pitmans. Every oil man should know about it at the earliest time. Write at once for full particulars or Bulletin No. 217.

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- ☐ No. 199 Marion Steel Derricks
- ☐ No. 200 Irish Pulling Machines
- ☐ No. 202 Marion Peerless Reversible Clutch
- ☐ No. 203 Marion Gas Engines
- ☐ No. 205 Marion Band Wheel Powers
- ☐ No. 206 Marion Sand Proof Working Barrel
- ☐ No. 214 Marion Hi-Test Sucker Rods.

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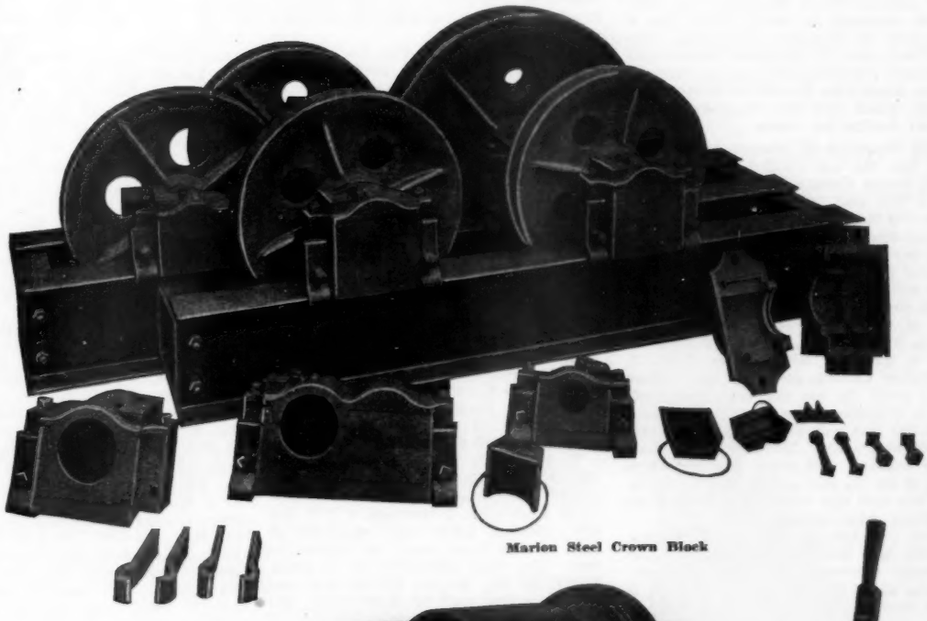
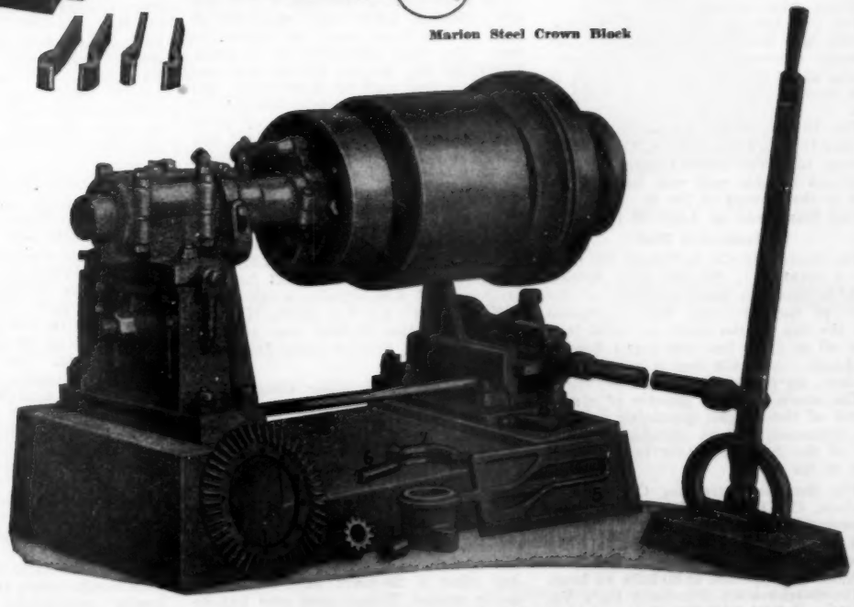


Marion Steel Crown Block

Marion Gas Pump



Marion Peerless Reversible Clutch

# Oklahoma Field Operations

By C. D. Lockwood

**Wilcox sand pool opened in Township 12-12, Okmulgee County. Cromwell Field, Seminole County, extended northwesterly. Hominy sand well in Osage County increases production with deeper drilling. Production of all the largest pools increased last week.**

The Oklahoma fields offered few features in the past week. Deeper drilling into the Hominy sand in Section 14-22-8 increased the production of an old well from 150 bbls. a day to 250 bbls. the first hour and 70 bbls. an hour two days thereafter. Another Wilcox sand pool was opened in Township 12-12, southern Okmulgee County, and the Cromwell Pool was extended northwesterly into the northwest quarter of Section 33-11-8, Seminole County, with a well which on Monday morning was making 23 bbls. an hour, but which was still uncompleted.

The production of the Tonkawa deep sand for the week ending March 28 increased several thousand barrels owing to the large increase in the production of the now famous Wentz Oil Corp.'s big well which increased to nearly 5,000 bbls. a day and the shooting of another deep sand well near it. Burbank, Papoose and Cromwell production all show an increase which boosted the production of the whole State, which had been showing a consistent decline for weeks.

The Riverland Co. deepened its No. 3, SW cor. Section 14-22-8, Hominy district, Osage County, from 2,667 feet to 2,676 feet and increased its production from 150 bbls. a day to 220 bbls. the first 40 minutes, 250 bbls. the first hour and two days later it was producing at the rate of 1,680 bbls. a day. This is an old well drilled about a year and a half ago. It is producing from the Hominy sand, one of the Wilcox series.

The Simms Oil Co., Howard and others' No. 1, SW cor. NW, Section 31-12-12, Okmulgee County, opened a new Wilcox sand pool. It has not been completed, but at 8 feet in the sand at a total depth of 3,295 feet was producing at the rate of 300 bbls. a day. The last foot of sand, it is believed, will prove to be the first foot of the big pay and on Monday morning this well was expected to prove a big producer when drilled deeper.

The Una Lee Oil Co.'s No. 1 Johnson, C NE NE NE Section 18-27-1w, Kay County, reported last week, was producing about 7 bbls. an hour through 2-inch tubing. The sand lies at 3,531-40 feet.

The 15½-inch pipe parted in the Bu Vi Bar Oil Co.'s No. 1 Sans, C SW SW, Section 15-21-2w, Noble County. The oil produced by this well will be used for fuel in the drilling of No. 2. It is producing from sand at 1,902-12 feet.

### An Important Well

The Carter Oil Co. & Pulaski Oil Co.'s No. 2 Jackson, C SE SW NW, Section 33-11-8, and the most northern of the tests in the Cromwell Field extension got the top of the sand at 3,396 feet, first oil at 3,423 feet and began flowing by heads. At 3,434 feet it was flowing 27 bbls. an hour.

The above well is a quarter of a mile ahead of the nearest producing well in the extension and its showing made it one of the most important near completion of the week.

The Roxana Petroleum Co.'s No. 6 Yarhola, C NE NE SW, Section 3-10-8, Cromwell, which got sand at 3,374 feet and was drilled to 3,454 feet made 1,038 bbls. a day naturally. It was shot with 20 quarts and started at 80 bbls. an hour.

The Southwestern Petroleum Co.'s No. 1 Little, C NW NW SE, Section 3-10-8, which was a 900-bbl. well when it came in, was shot with 20 quarts and made 2,503 bbls. the following 24 hours. The total depth is 3,447 feet.

The Shaffer Oil & Refining Co.'s No. 1 Little, C SW NW NE, Section 10-10-8, was spraying oil, water and b.s. at a total depth of 4,146 feet. It was a Wilcox sand test. The Gypsy Oil Co.'s No. 6 Hale, SW cor. SE NE Section 9-10-8, was fishing for lost tools at 4,000 feet on top of the Wilcox sand.

The Pure Oil Co.'s No. 2 Jackson, C SW SE SW, Section 33-11-8 got the top of the sand at 3,345 feet, and was drilled to 3,391 feet. It was making 12,000,000 feet of dry gas. Number 4 Jackson, C SE SE SW Section 33, was making 10,000,000 feet of dry gas and 10 bbls. of oil in sand at 3,318-3,418 feet. Neither well was completed.

The Sinclair Oil & Gas Co.'s No. 2 Fixico, C NE NW SE Section 5-10-8, got sand at 3,434 feet and was drilling at 3,468 feet and producing 210 bbls. a day.

The Sinclair Oil & Gas Co.'s No. 7, C NW NE NE, Section 4-10-8, was good for 350 bbls. in sand at 3,360-3,418 feet.

The Prairie Oil & Gas Co.'s No. 16 Buckner, C NW SE SE, Section 8-10-8, got the top of the sand at 3,484 feet, first oil at 3,492 feet. There was a break from 3,525 to 3,550 feet and then a sand. There was 500 feet of oil in the hole.

### Results in Papoose

In the Papoose Field, Seminole and Okfuskee counties, the Independent Oil & Gas Co.'s No. 6 Alexander, C NE SE NE Section 2-9-9, had 3,000,000 feet of gas but no oil in sand at 3,333 feet, drilled to 3,340 feet.

T. B. Slick's No. 1 Dunson, C SW SW NE, Section 35-10-9, was a hole full of water from sand at 3,339-76 feet. T. B. Slick's No. 5 Grayson, C NW NE SW, Section 3-9-9, was swabbing 40 bbls. a day from sand at 3,283-3,303 feet. The same operator's No. 8 Sands, C NE SE SE, Section 35-10-9, got sand at 3,349 feet and at 3,369 feet, was producing 600 bbls. of fluid, 500 bbls. of which was oil and the remainder water and b.s. Slick's No. 2 Dunson, C SW SW NE, Section 35-10-9 was shut down at 4,174 feet with a hole full of water from what is supposed to be Wilcox sand. It may be plugged.

The Magnolia Petroleum Co.'s No. 3 Brown, NE cor. NW SE, Section 18-9-9, was a dry and abandoned at 3,520 feet. The lime was found at 3,503 feet and sand at 3,505 feet containing salt water.

T. B. Slick's No. 2-A Sands, NW cor. SW SE, Section 35-10-9, was good for 1,283 bbls. the first 24 hours from sand at 3,317-34 feet.

### Gasser in Wagoner County

The Lyons Petroleum Co. has a 5,000,000-foot gasser in No. 1 Sugar, NW cor. NE SE, Section 18-17-16, Coweta Field, Wagoner County, in sand at 991-1,004 feet and is preparing to drill another hole.

Munn and others' No. 1 Jauger, SE cor. SW SW, Section 20-19-12, Red Fork district, found Wilcox sand at 2,100-62 feet and the well started at 125 bbls. a day after a 20-quart shot. This recently opened Wilcox sand pool has developed several wells that are averaging around 80 bbls. a day from a comparatively shallow sand. The oil is around 35 gravity.

### In the Bristow Field

Billingslea and the Skelly Oil Co. have a good well in No. 2 Foster, CNL SE SW, Section 30-15-9, Bristow Field, Creek County from sand at 3,037-46 feet. C. G. Tibbens' No. 2 Bearhead, NW cor. Section 13-14-8, Bristow Field, is a 150-bbl. well at 2,324-62 feet. Hall & Donnelly's No. 1 Thompson, NE cor. Section 19-14-10, Tuskegee district, Creek County, was shot with 40 bbls. and responded with a 90-bbl. production. The Mid-Continent Petroleum Corp.'s No. 1 Marshall, NE cor. SW, Section 14-14-9, Bristow Field, got sand at 3,742-45 feet and a hole full of water.

The Davenport District was made to look better than ever when the Magnolia Petroleum Co. drilled deeper in its No. 1 Sukovaty, SW cor. NW NE, Section 3-14-5, Lincoln County. It made 425 bbls. at a total depth of 3,442 feet but when drilled to 3,456 feet started off at 616 bbls. The oil is 47.5 gravity.

### Burbank Completions

In the Burbank Field, Osage County, the Phillips Petroleum Co. completed a number of wells. Its No. 8, SE cor. NE SE NE, Section 11-27-5, made a 300-bbl. well naturally from sand at 2,982-3,056 feet. Number 1, SW cor. Section 12-27-5, got sand at 2,978-3,034 feet. It swabbed 50 bbls. Number 3, SE cor. SW SE SW, Section 12-27-5, was a hole full of oil. The pipe collapsed after the shot, which caused a fishing job. Number 4, SE cor. SW, Section 12-27-5, made 500 bbls. a day after a 150-quart shot at 2,995-3,055 feet. No. 8, SE cor. NE SE SW, Section 12-27-5, made 200 bbls. a day naturally from pay sand at 2,982-3,037 feet. Number 14, NW cor. NE NW SW, Section 12-27-5, started at 200 bbls. naturally from pay at 2,982-3,032 feet. Number 15, NE cor. NW NE SW, Section 12-27-5, made 250 bbls. naturally from sand at 2,980-3,031 feet. The Skelly Oil Co.'s No. 1, SW cor. Section 2-27-5, a 300-bbl. well, naturally, from sand at 2,982-3,056 feet, was shot with 80 quarts, the pipe collapsing, necessitating a fishing job.

The Red Bank Oil Co.'s No. 6, C E half NE NW, Section 29-23-8, Pawnee County, was dry and abandoned at 2,560 feet. C. B. Peters and others' No. 2, SW cor. NE SW SE, Section 4-23-9, was dry and abandoned at 605 feet. The Amerada Petroleum Co.'s No. 2, CWL SE, Section 16-22-9, is a 25-bbl. well at 2,400-01 feet. The Skelly Oil Co. and others' No. 16, CWL SW, Section 34-22-12, started at 15 bbls. after a shot at 1,220-56 feet. The Magnolia Petroleum Co.'s No. 6 Lesher, SE cor. NE, Section 21-20-6, got sand at 2,465-71 feet. It was shot with 40 quarts and the hole filled 1,000 feet with oil. The Texas Co.'s No. 4 Ellis, NE cor. NW NW, Section 27-20-6, got sand at 3,082-87 feet, and started at 168 bbls. a day.

John H. Markham, Jr. has started drilling a test NE cor. SE SW, Section 24-20-8. Ed Reese is drilling deeper at 2,540 feet in No. 2, NW cor. NE NE SE, Section 24-20-8.

In Southeastern Osage County the following completions and near completions were recorded: Howard Duffield & Berlin's No. 7, NW cor. NE NW NW, Section 15-21-12, 10 bbls. a day at 1,300-50 feet; Barnsdall Oil Co.'s No. 25, NE cor. SW NE NE, Section 31-21-12, 80 bbls. the first 18 hours from sand at 1,885-1,915 feet; Gillespie and others' No. 14, CWL E half, W half, Section 31-21-12, 5 bbls. at 2,035-97 feet; Sand Springs Home's No. 2, SE cor. NE SE SW, Section 32-20-11, 10 bbls. at 2,465-74 feet; Gillespie and others' No. 24, NE cor. NW NE NE, Section 8-20-12, 30 bbls. at 2,008-13 feet; Winona Oil Co.'s No. 20, NW cor. SW SW NE, Section 9-20-12, swabbed 287 bbls. of oil and 65 bbls. of water from sands at 1,870-1,905 feet, 1,910-13 feet, 1,942-44 feet, total depth 1,956 feet. Oklahoma Natural Gas Co.'s No. 678, SE cor. NE NE SW, Section 29-20-12, 1,500,000 feet of gas from sand at 1,578-89 feet, shut in.

### Tonkawa Output

Following is the total daily average production of the Tonkawa Field for the week ending March 24.

| Company— | Wells | Prod. |
|---|---|---|
| Amerada Pet. Corp | 38 | 5,170 |
| Blackwell Oil & Gas | 34 | 2,649 |
| Carter Oil Co. | 4 | 117 |
| Champlin Refining Co. | 2 | 11 |
| Champlin Ref. Co. and Twin State Oil Co. | 1 | 9 |
| Comar Oil Co. | 363 | 28,762 |
| Cosden Oil & Gas and Maryland Oil Co. | 11 | 214 |
| Gypsy Oil Co. | 110 | 19,107 |
| Healdton Oil & Gas | 27 | 1,240 |
| Wentz Oil Corp | 49 | 7,363 |
| McMan Oil Corp. | 2 | 968 |
| Pennok Oil Co. | 32 | 3,377 |
| Phillips Pet. Co. | 3 | 170 |
| Prairie Oil & Gas Co. | 12 | 682 |
| Sinclair Oil & Gas Co. | 1 | 9 |
| T. B. Slick and Comar Oil Co. | 38 | 2,610 |
| Southwestern Pet. Co. | 15 | 558 |
| The Texas Co. | 5 | 1,417 |
| White Eagle Oil & Ref. | 7 | 113 |
| Total | 754 | 74,294 |
| Total previous week | 750 | 81,573 |
| Difference | 4 | 6,279 |

### Deep Sand Output

Following was the average daily production for the deep sand in Tonkawa for the week ending March 24.

| Company— | Wells | Prod. |
|---|---|---|
| Amerada Pet. Corp | 7 | 4,274 |
| Blackwell Oil & Gas | 4 | 1,795 |
| Comar Oil Co. | 40 | 20,462 |
| Gypsy Oil Co. | 16 | 16,296 |
| Wentz Oil Corp. | 7 | 5,666 |
| McMan Oil Corp. | 1 | 967 |
| Pennok Oil Co. | 7 | 2,426 |
| Phillips Pet. Co. | 1 | 139 |
| T. B. Slick and Comar Oil Co. | 7 | 1,018 |
| The Texas Co. | 1 | 1,253 |
| Total | 90 | 54,440 |
| Total previous week | 89 | 62,911 |
| Difference | 1 | 8,471 |

### Burbank Field

Following is the average daily production of the Burbank Field for the week ending March 24.

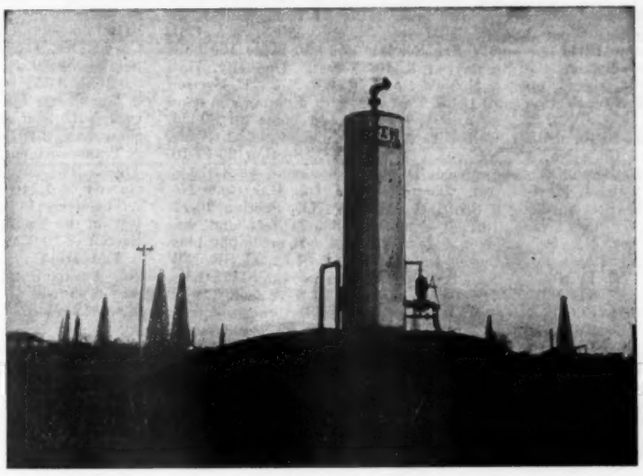
| Company— | Wells | Prod. |
|---|---|---|
| Carter Oil Co. | 250 | 9,054 |
| Mid-Continental Pet. Corp. | 106 | 2,235 |
| Comar Oil Co. | 7 | 126 |
| Devonian Oil Co. | 16 | 226 |
| Gypsy Oil Co. | 196 | 4,396 |
| Kewanee O. & G. Co. | 25 | 349 |
| Laurel O. & G. Co. | 16 | 225 |
| Lewis Oil Co. | 2 | 295 |
| Lorraine Pet. Co. | 15 | 139 |
| Midland Oil Co. | 37 | 1,069 |
| Mid-Kans O. & G. Co. | 40 | 1,396 |
| Peters & Oliphant | 2 | 195 |
| Phillips Pet. Co. | 129 | 11,693 |
| Phillips Pet. Co. and Delmar Oil Co. | 16 | 1,213 |
| Phillips Pet. Co. and Skelly Oil Co. | 176 | 4,179 |
| Prairie O. & G. Co. | 106 | 2,287 |
| Prod. & Ref. Co. | 29 | 431 |
| Roxana Pet. Corp | 66 | 674 |
| Simons & Moore | 29 | 275 |
| Sinclair O. & G. Co. | 145 | 2,696 |
| Skelly Oil Co. | 21 | 357 |
| Tidal-Osage Oil Co. | 43 | 682 |
| The Texas Co. | 10 | 491 |
| Twin State Oil Co. | 24 | 891 |
| Total | 1,496 | 45,643 |

### Kay County Extensions

| | | |
|---|---|---|
| George Bole | 3 | 245 |
| Carter Oil Co. | 11 | 1,115 |
| Comar Oil Co. | 19 | 1,023 |
| Mid-Continent Pet. Corp. | 16 | 1,134 |
| Gypsy Oil Co. | 19 | 345 |
| Laurel O. & G. Co. | 5 | 224 |
| Mid-Kans. O. & G. Co. | 10 | 774 |
| Phillips Pet. Co. | 31 | 3,379 |
| Prairie O. & G. Co. | 4 | 290 |
| Pure Oil Co. | 5 | 349 |
| Roxana Pet. Co. | 8 | 339 |
| Dye & Tomlinsen | 8 | 481 |
| Skelly Oil Co. and Phillips Pet. Co. | 29 | 264 |
| Sinclair O. & G. Co. | 5 | 226 |
| The Texas Co. | 16 | 251 |
| Twin State Oil Co. | 15 | 1,130 |
| Total | 195 | 11,696 |
| Total entire field | 1,691 | 57,340 |
| Total previous week | 1,687 | 56,741 |
| Difference | 4 | 599 |

### Surprise in Bald Hill

In the Bald Hill district, Okmulgee County, the Papoose Oil Co. has a 600-bbl. well in the Wilcox sand in its No. 9 Osborne, NE cor. SW SE, Section 21-15-14. The top of the sand was found



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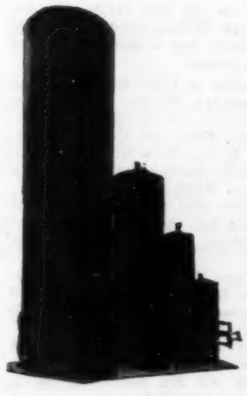
Type No. 2—Capacity 2,000 bbls. oil, 5 million cu. ft. gas.

Type No. 3—Capacity 500 bbls. oil, 1 million cu. ft. gas.



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at 2,168 feet. There was 6 feet of pay and the total depth was 2,183 feet. The Texas Co.'s No. 14 Jefferson, NE cor. SW SW, Section 22-15-14, was dry and abandoned at 1,750 feet. Payne & West have a rig on the ground for No. 1 Unallotted, CWL SE NE, Section 16-15-14.

In the Schueter district, Okmulgee County, Howard and others' No. 10, SW cor. NW, Section 31-12-12, got the top of the Wilcox sand at 3,237 feet and the well started off at 45 bbls. the first hour and 250 bbls. the first 24 hours.

Wooster & Mee and the Aztec Oil Co. are drilling in the same section. The former's No. 4 Rentie, SE cor. NE NW, was below 2,630 feet and the Aztec Oil Co.'s No. 4 Rentie, NW cor. SE SW, was at 2,420 feet.

The Southern States Oil Co. drilled a failure in No. 1 Henry, SE cor. Section 20-12-13, abandoning it at 3,360 feet.

In the Bald Hill district, Beans and others have a rig on the ground for No. 1 Colbert, CEL SW SE, Section 15-14-14. W. R. Somerville has a rig up for No. 1-A Grayson, NE cor. SW SE, Section 21-14-14; Clarion Oil Co., a rig on the ground for No. 1-A Wright, CEL SW SW, Section 22-14-14, and the Kewanee Oil & Gas Co. a rig up for No. 14 Wright, CWL NE SW, Section 22-14-14.

In the Beggs district Noble and others' No. 1 Unallotted, NE cor. SE, Section 19-15-12, is a 1,000,000-foot gasser at 1,052-60 feet. No. 2, SE cor. NE SE, Section 19, is drilling at 300 feet. Michelson and others' No. 1 Unallotted, NE cor. SE SE, Section 19-15-12, is good for 2,500,000 feet of gas at 1,052-60 feet. Shelton and others' No. 2 Brown, NE cor. SE, Section 28-15-13, was abandoned at 2,615 feet.

**300-Bbl. Well in 13-12**

Waite Phillips Co.'s No. 1 Kanard, SW cor. SE SW, Section 28-13-12, is good for 300 bbls. from sand at 2,448-56 feet. The same company's No. 1 Morton, SW cor. NW, Section 33-13-12, is a 15,000,000-foot gasser at 2,325-33 feet. The Magnolia Petroleum Co. was fishing at 1,640 feet in No. 1 Kanard, SE cor. SW SW, Section 28, offsetting the Waite Phillips producing well in Section 28, above mentioned. The Independent Oil & Gas Co., NW cor. NE NW, Section 33-13-12, in an old well drilling deeper, passed through Wilcox sand at 3,139-45 feet where there was a show of oil and was drilling deeper.

King, Keaton & Gold have a rig up for No. 1 Snakeye, SE cor. NW, Section 25-14-12.

The Gladys Belle Oil Co. and Independent Oil & Gas Co.'s No. 6 Mitchell, CSL NW NW, Section 6-12-12, made a 15-bbl. well at 2,519-35 feet.

On the west side of the Beggs Field the Red Bank Oil Co. has a rig up for No. 4 Hawkins, NE cor. Section 36-15-11.

In the Tiger Flats district the Eastern Oil Co. has a rig up for No. 9 Berry, NE cor. SE SW, Section 25-13-11.

The Olean Petroleum Co. has 1,000 feet of oil in the hole in its No. 1 Cover, SW cor. NW SE SE, Section 11-15-12, from sand at 2,128-58 feet.

In the Schulter district, Morton and others were drilling at 350 feet in No. 3 Tiger, CWL SW NE, Section 7-12-12; and at 2,380 feet in No. 3 Fisher, CEL SE NW, Section 7.

In the Okmulgee district the Cosden Oil & Gas Co.'s No. 7, C SW SW NE, Section 12-13-13, will be deepened from 2,436 feet. The same company's No. 17, NE cor. SW, Section 12, got 3,000,000 feet of gas at 2,470-2,500 feet. It is an old well drilled deeper.

**Creek County**

In the Kellyville district, Creek County, the Riverside Oil Co.'s No. 3 Bell, NE cor. SW SW, Section 19-17-9, is a 6,000,000-foot gas well at 2,665-90 feet. Wood & Farren have started drilling No. 3, NE cor. NW SE, Section 21-17-9. The Texas Co.'s No. 1, SE cor. SW, Section 18-17-10, was abandoned as dry at 3,488 feet.

Waite Phillips has started drilling No. 1, NW cor. SW, Section 5-16-9.

J. B. Grieves is drilling below 700 feet in No. 3 Lowe, CWL NE, Section 13-19-8.

C. G. Tibbens has a rig up for No. 11, NW cor. SE, Section 30-15-9.

**Work in Eastern Bristow Field**

In the Eastern Bristow district the Plymouth Petroleum Co. is rigged up for No. 5 Sewell, C SE NW NW, Section 26-15-10; Cumberland Oil Co.'s No. 2 Harry, NW cor. Section 27-15-10, drilling at 600 feet; Skelly Oil Co.'s No. 4 McIntosh, SW cor. NW SE, Section 29-15-10, drilling at 300 feet; W. J. Hartman's No. 4, CSL NW NE, Section 33-15-10, drilling at 300 feet.

Tom Kelly's No. 3, SW cor. NE, Section 4-14-10, made 140 bbls. after a 20-quart shot at 3,180-96 feet. C. F. Noble has a rig up for No. 3, C SW NE NW, Section 20-14-10. The Wilcox Oil & Gas Co.'s No. 7 Scott, C NE SW NE, Section 20, was drilling at 300 feet. E. L. Kistler had a rig up for No. 3 Scott, SW cor. SW NW, Section 21-14-10. The Burke-Greis Oil Co. was drilling below 500 feet in No. 4 Barnett, C SE NE, Section 31-14-10.

Billingslea & Carter have started drilling No. 1 Mayes, NW cor. SE, Section 22-14-9. F. R. Billingslea's No. 1 Micco, SE cor. NE NE, Section 28-14-9 started at 35 bbls. naturally from sand at 3,124-68 feet. The Pulaski Oil Co. was spudding in No. 1 Long, NE cor. SW, Section 6-14-9.

The Shaffer Oil & Refining Co.'s No. 1 Long, SE cor. NE NE, Section 6-14-9, got 36,000,000 feet of gas in sand at 1,243-68 feet, which it will mud off. The same company's No. 2 Long, C NE NE, Section 6-14-9 is a 15,000,000-foot gasser in sand at 1,260-75 feet, which was shut in. The Skelly Oil Co. abandoned as dry its No. 1 Davis, SE cor. Section 21-14-9 at 3,145 feet.

**Good Wells in Tuskegee District**

The Mid-Continent Petroleum Corp.'s No. 1 Harry, NW cor. SW SE, Section 4-14-10, made a 40-bbl. well after a shot in sand at 3,191-96 feet. The Atlantic Oil Producing Co.'s No. 2 McNevins, C SW SW SE, Section 17-14-10, was good for 140 bbls. naturally from sand at 3,397-3,420 feet. No. 3 McNevins, CSL SW SE, Section 17-14-10 made 150 bbls. a day at 3,410-35 feet. Donnelly, Hall & Noble's No. 1, C NE NE NE, Section 19-14-10, was shot with 40 quarts in sand at 2,869-2,932 feet and made an 80-bbl. well. Thomas B. Slick's No. 1 Scott, NE cor. NE NW NE, Section 20-14-10, swabbed 34 bbls. from sand at 3,370-95 feet. The Wilcox Oil & Gas Co.'s No. 3 Scott, C SW NW NE, Section 20-14-10, got sand at 3,335-71 feet and was given two small shots. It made 550 bbls. the first day. No. 4 Scott, C SE NW NE, Section 20, was good for 475 bbls. after small shots at 3,331-72 feet. No. 6 Scott, C SW NE NE, Section 20, started at 320 bbls. from sand at 3,340-69 feet, shot with 20 quarts.

The Southwestern Petroleum Co. had a rig up for No. 1, C SE SE SE, Section 18-14-10. The Phillips Petroleum Co. had a rig on the ground for No. 1, SE cor. NE NW, Section 19-14-10. The Prairie Oil & Gas Co. has a rig up for No. 1 Loring, C NW NW NW, Section 20-14-10 and for No. 2, C NE NW NW, Section 20.

**The Busy Papoose Field**

The Papoose district in townships 9-9 and 10-9, notwithstanding that its production is steadily falling off is still the scene of many operations.

T. B. Slick's No. 6 Alexander, NW cor. SE NW, Section 2-9-9, was completed as a 120-bbl. well in sand at 3,224-36 feet.

T. B. Slick's No. 1 Grayson, C NW NE, Section 3-9-9, at 3,296-3,322 feet was good for 1,100 bbls. No. 3 Grayson, NE cor. SE SE, sand at 3,295-3,317 feet, 160 bbls.; No. 3 A. Grayson, NW cor. NW NE, Section 3-9-9, 400 bbls. at 3,296-3,316 feet.

The Mid-Continent Petroleum Corp.'s No. 10 Alexander, C NW NW NW, Section 2-9-9, had a 600-bbl. showing at 3,321 feet and No. 12 Alexander, NW cor. NE NW, Section 3, a 1,000-bbl. showing at 3,309 feet.

Robinson and the Amerada Petroleum Corp.'s No. 4 Carter, NW cor. SE NW, Section 4-9-9, was a 190-bbl. well at 3,080 to 3,355 feet.

The Foster Oil Co.'s No. 4 Tiger, NW cor. NE, Section 4-9-9 had a 150-bbl. showing at 3,107 feet.

Transcontinental Oil Co.'s No. 9 Tiger, SE cor. NE NE, Section 4-9-9 started at 1,140 bbls. at 3,310-20 feet.

The Berry Petroleum Co. abandoned its test on the Tecumseh farm, NE cor. SW, Section 8-10-9 at 4,082 feet.

The Mid-Continent Petroleum Corp.'s No. 1 Simon, NE cor. Section 21-10-9 was a shut-in as a 50,000,000-foot gasser at 3,313 feet. It produces 50 bbls. of gasoline a day.

Thomas B. Slick and others' No. 6 Sands, got sand at 3,347-64 feet and made a 70-bbl. well.

There are close to 100 wells drilling in the Papoose Field but only three new operations were reported in the course of the week. The Burke Greis Oil Co. has a rig up for No. 1 Brunner, SE cor. Section 16-10-9 and Gibson & Zahnizer a rig up for No. 1 Tecumseh, SE cor. NE SW, Section 16. The Kingwood Oil Co. will drill in No. 1 Bruner, SW cor. NE SE, Section 16.

In Township 8-10, Hughes County, the Prairie Oil & Gas Co.'s No. 2 Alexander, C NW NW NW, Section 20, had 1,000,000 feet of gas at 1,005 feet and the rig was burned down. A number of tests have been started including Dixie Oil Co.'s No. 1 Diamond, ready to spud in, and the Independent Oil & Gas Co.'s No. 1 Morrison, SW cor. SE NE, Section 18, and two rigs up in Section 18.

Township 11-8, in Okfuskee and Seminole counties is quite active, a number of first tests on undeveloped properties being on record. The Mutual Oil Co.'s No. 2 Pierce, SE cor. SW SE, Section 33-11-8, had 25,000,000 feet of gas and a spray of 80 bbls. of oil at 3,318-3,408 feet and No. 3, NE cor. SW SE, Section 33 was showing 40 bbls. of oil and 25,000,000 feet of gas at 3,295 to 3,379 feet. Waite Phillips Co. and Mid-Continent Petroleum Corp.'s No. 1 Brown, SE cor. NE SW, Section 33, had sand at 3,322 feet, but the tools were stuck in the hole at 3,385 feet with the well showing 10 bbls. of oil along with 25,000,000 feet of gas.

The McMan Oil Co.'s No. 1 Foster, SW cor. SE SW, Section 34-11-8, made 700 bbls. the first 24 hours from sand at 3,368 feet. The total depth was 3,408 feet, where water was uncovered. The company has four other operations started on the lease, the latest being No. 4, NW cor. NE SW, and No. 5, C SE SE SW, both rigs up. The Waite Phillips Co.'s No. 1 Pierce, SW cor. SE SE, Section 2-11-8, was drilling below 1,500 feet; Guy Fisher and others' No. 1 Lena, C SE SE NE, Section 15, drilling below 600 feet; Berry Petroleum Co.'s No. 1 Susey, SW cor. NE, Section 31, drilling at 700 feet; Gypsy Oil Co. with four wells drilling on the Jackson farm, northeast quarter of Section 33; Mutual Oil Co. with Nos. 4, 5, 6, 7 and 8, drilling at various depths on the Pierce farm, southeast quarter of Section 33; Pure Oil Co. with Nos. 1, 2, 3 and 4 at various depths on the Jackson farm, southwest quarter of Section 33; Carter Oil Co.'s No. 1 Baker, SE cor. NW, Section 33, drilling below 1,800 feet; Waite Phillips Co. and Mid-Continent Petroleum Corp.'s No. 2 Baker, SE cor. NW, Section 33, drilling below 3,400 feet; Sinclair Oil & Gas Co.'s Nos. 3, 4, 5, 6, 7 and 8 J. Pearce, southeast quarter of Section 33; same company's No. 1 Jackson, C SW NW NW, Section 34 and same company and Gardner Petroleum Co.'s Nos. 2, 3, 4, 5, 6, 7 and 8, southwest quarter of Section 34, are all drilling.

The Laurel Oil & Gas Co.'s No. 4 Fixico, C NE NW NW, Section 4-10-8, got sand at 3,374 feet, oil at 3,375 feet, total depth 3,395 feet and the well was good for 1,000 bbls.

**Okfuskee County**

The Tidal Oil Co.'s No. 1 Jarrett, NW cor. SW SW, Section 2-11-11, Okfuskee

(Continued on Page 96)

# Kansas Oil Field News

By C. D. Lockwood

News of the week from Kansas was largely of a routine character. Greenwood County supplied a number of good completions and gave evidence of a pronounced revival of new operations. There was nothing new from the Wentz Oil Corp.'s test on the Estes farm, C NE SE, Section 17-33-3, northeast of the Rainbow Bend Pool in Cowley County. A fishing job is delaying deeper drilling in this well, which had a good showing of oil. The bottom of the hole was full of cavings.

**In the Teeter Pool**

McGinnis & Bitler completed a 225-bbls. well in No. 4 Teeter, C NE NE NW, Section 15-23-9, Greenwood County, shooting sand at 2,350-2,409 feet with 160 quarts of explosive. The Empire Gas & Fuel Co.'s No. 13 Teeter, C SW NE SE, Section 16-23-9 was shot with 170 quarts in sand at 2,369-2,424 feet and started at 100 bbls.

McGinnis & Bitler have started drilling No. 6 Teeter, C SE NE NW, Section 15-23-9; Phillips Petroleum Co., drilling below 840 feet in No. 4 Teeter, C NW NW SE, Section 15-23-9; Skelly Oil Co. drilling at 1,000 feet in No. 5 Teeter, C SE NW SW, Section 15, and 1,100 feet in No. 6, C SW NE SW, Section 16; Empire Gas & Fuel Co. drilling below 2,000 feet in No. 15 Teeter, C NE SE NE, Section 16-23-9, and below 1,200 feet in No. 20, C SW SE NE, Section 16. Beverly and others drilling at 1,600 feet in No. 1-A, C SW NW NW, Section 32-23-9.

Roth & Faurot's No. 1 Burke, NW cor. NE, Section 11-24-8, was drilling below 1,600 feet; Smith and others' No. 1, SE cor. NE NW, Section 5-24-9, drilling below 1,400 feet; Polhamus and others' No. 2 Marshall, CEL SE SW, Section 27-24-9, at 1,800 feet; Roxana Petroleum Corp.'s No. 5 Marshall, SE cor. NE NW, Section 34-24-9, at 1,020 feet.

The Phillips Petroleum Co.'s No. 5 Hoover, CNL SW, Section 3-25-9, is a 10-bbl. well after a shot at 2,187-2,261 feet.

The Mid Kansas Oil & Gas Co.'s No. 13 Ladd, C N half NW SE, Section 19-25-9 was drilling below 1,100 feet, and No. 5 Ladd, SW cor. SE NE SW, Section 30-25-9 was below 500 feet.

New work in Township 24-9 included the Roth & Faurot and the Mission Oil Co.'s No. 7, SW cor. NE, Section 1-24-9, rig on the ground; Lewis Oil Co.'s No. 4, NW cor. SE, Section 1-24-9, rigged up; Transcontinental Oil Co.'s No. 12 Olson, CNL SW SE, Section 11-24-9, drilling below 1,400 feet and Mission Oil Co.'s No. 6, CNL NW, Section 23-24-9 and No. 7, C east half NW NW, Section 23, rig up and tools in.

Rogers and others were drilling at 600 feet in No. 12, CWL NW NW, Section 6-24-10.

The Magnolia Petroleum Co.'s No. 2, SE cor. NE NE NW, Section 28-26-9, was dry and abandoned at 2,440 feet.

The Great Southern Oil Co.'s No. 23 Hull, SW cor. NE SW SW, Section 2-26-8, was drilling at 480 feet.

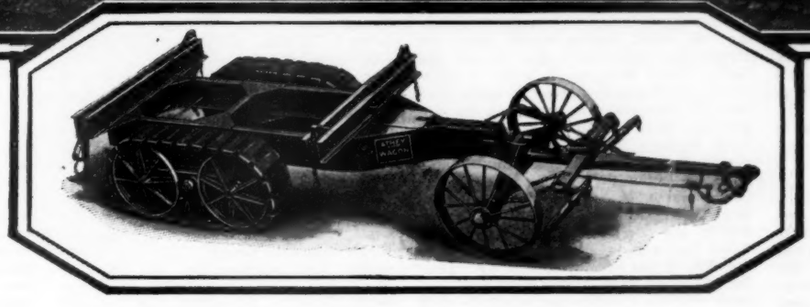
The Flint Ridge Oil Co. has started drilling No. 1 C NW SW SW, Section 23-26-9.

Braden Brothers' No. 1 SE cor. NW, Section 13-22-13 was dry and abandoned at 2,234 feet. The same operators' No. 5 Morris, C N half SE Section 27-22-13 is a 70-bbl. well at 1,830-43 feet after a 40-quart shot. The Theta Oil Co.'s No. 21, SE cor. NE SW, Section 10-23-13 is spudded in and a rig is up for No. 22, NE cor. NW SE SW. Section 10.

The Manhattan Oil Co.'s No. 11 Elliott, NW cor. SW, Section 14-23-13 is good for 30 bbls. from sand at 1,820-54 feet, shot with 120 quarts. Its No. 12 Elliott, CSL SW, Section 14-23-13 is a rig. Mendenhall & Winkler are ready to start No. 7, C NE SW, Section 14-23-13.

(Continued on Page 90)

# Roads always paved-for Athey



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# California Field Operations

By L. P. Stockman

**New record for shallow production established in southern California when well at Inglewood made 591 bbls. at 1,750 feet. Two completions at Long Beach, one making 1,502 bbls. 24.6 gravity oil. Dominguez showed slight decrease in output due to fact no wells were completed. Ventura is active.**

LOS ANGELES, Cal., March 28.—Considerable new drilling has been started at Ventura, but it will be several months before any of the new holes now being started will be finished. The Shell has just spudded in two new tests on the Edison lease and one on the Gosnell property. On the latter, the company has seven drillers and two rigs standing. No. 5 is at 4,011 feet; No. 6 at 4,313 feet; No. 7 at 4,821 feet; No. 8 at 5,082 feet; No. 9 at 4,300 feet; No. 10 at 411 feet and No. 11 at 2,100 feet. On the Edison lease Nos. 3 and 4 are drilling, while on the Taylor property No. 8 is gassing at 2,837 feet. The General Petroleum is working on No. 6 Notten at 3,845 feet and No. 4-A Barnard at 325 feet. The Union is drilling No. 1 Snyder at South Mountain under a handicap as the well persists in flowing from the upper sands. It is now down 2,907 feet and drilling will be continued. The Tehmescal Petroleum is going ahead with its second well and should finish a good producer shortly. This is the old B. & L. well recently taken over by E. L. Doheny, Jr. The Ring Oil Syndicate is having all kinds of trouble with water on Section 23-3-21 at 3,770 feet.

**Rosecrans**

The Star Petroleum deepened No. 1 Shoemaker at Rosecrans to 4,923 feet and in doing so eliminated the water condition which has been holding up the successful completion of this well for several months. A 4½-inch liner, carrying 132 feet of 100-mesh screen, was used to finish this producer, which started off flowing 483 bbls. of 37.8 gravity oil cutting 3 per cent. The Star Petroleum, by a court order, will be unable to secure any of the money accruing from the sale of oil as it will be impounded pending a decision as to whether the property owners or original subdividers control the mineral rights. The well is located in a subdivision which has a reversion clause prohibiting drilling. The property owners leased to the Star Petroleum while the subdividers, claiming that the property has reverted to them because of the drilling prohibition, has authorized the Wilshire Oil Co. to take the oil. The sheriff's office has taken the necessary action to protect the equities of all interested parties, pending a final court decision.

The Hercules Gas Co. drilled into a gas pocket at 4,368 feet and its No. 1 came in doing approximately 5,000,000 feet of gas. The hole is, however, producing 100 bbls. of clean 37.2 gravity oil in addition to the gas output. Should the gas flow diminish there is every reason to believe that the oil production will show a corresponding increase.

The General Petroleum's No. 1 Amestoy, the deepest well drilled in the Rosecrans area to date, has made several short flows during the past week, but the well does not have sufficient kick to maintain a steady flow. The company will run in the rods and tubing for a more thorough test of this deep hole, which is down 6,737 feet and, while a 100-bbl. pumper may be secured, it can not be considered profitable because of the great depth. On the Vaughn lease, the General Petroleum is drilling ahead in both Nos. 1-A and 2-A, the former being down 2,870 feet and the latter 2,405 feet. Material is on ground for No. 3. The Julian Petroleum is working on three holes with locations staked for two others. No information is available, however, as to when the new holes will be spudded in. The Barnsdall has not yet started work on Nos. 4 and 5 on the O'Dea lease, but is going ahead with the two drillers on its Rosecrans property, No. 4 at 4,404 feet and No. 5 at 3,641 feet. George F. Getty is not having the same degree of success in this field which he experienced at Santa Fe and Long Beach. Of his five holes at Rosecrans, three are drilling ahead, one is held up with a difficult fishing job at 5,035 feet and another is being abandoned because of mechanical trouble. Paul Getty, George F. Getty's son, has a 1,250-bbl. producer and 3,130 feet of hole in his second well, which should be good for production as it is in proven territory.

**New Work Started**

Several new holes were spudded in during the week, among which were the Henderson Petroleum's No. 1 and the Golden State Refining Co.'s No. 1 Rosecrans. New rigs are going up quite rapidly and Rosecrans is taking on the appearance of a real oil field. The Petroleum Midway has one small producer, No. 1 Colby, four drillers making hole and two being delayed because of mechanical trouble. No. 1 Kreitz, in particular, is in a bad mechanical shape. A fishing job developed some time ago at 4,016 feet and, being unable to recover the fish, it was decided to drill by. During the early part of this week the company ran into another snag when the drill collar and bit became stuck alongside of the old fish. If the company succeeds in cleaning out this hole it deserves a good producer and, while it is not impossible to do so, the task is a difficult one. Several days have already been spent, without success. No. 1 Fox is being circulated with oil in an effort to loosen the drill pipe which became stuck at 4,464 feet. No. 1 Baskin at 5,163 feet. No. 1-A Colby at 4,924 feet, No. 1 Folsom at 5,206 feet and No. 1 McCormick at 4,963 feet are in a satisfactory condition.

The Pan-American has decided to let the Shell test out the Leonis and Anderson leases and has accordingly suspended work on No. 1 Anderson at 4,397 feet and will drill another wildcat further to the west. No. 1 Leonis of the Shell is in a fine gray sand at 5,502 feet. The Standard's No. 1 Cowan, in the northeastern part of the field is still going strong at 6,186 feet, the formation being a sandy brown shale. The Sentinel Oil Co. recovered the fish, which has been holding up progress in No. 4 Athens at 3,935 feet and should begin making new hole tomorrow. The Marine Oil Co. has a bad fishing job on its hands with No. 32 at 4,385 feet and, although several weeks have already been spent fishing, the hole is still in a bad shape. No. 31 is doing 1,150 bbls., while No. 33 is putting 1,500 bbls. into the company's tanks each day. The cement is just being drilled out for No. 34, while No. 35 is going ahead at 3,325 feet. No. 40 is making hole at 2,505 feet, while No. 43 has just been spudded in.

**Inglewood**

The Petroleum Midway established a new record for shallow production in southern California during the past week when No. 1 Moynier, in the Inglewood Field, was completed. This, the company's first producer on the Moynier lease, but second completion at Inglewood, came in doing 591 bbls. of 19.5 gravity oil, which cut 1 per cent. It is flowing through a ½-inch bean under a pressure of 150 pounds. It was completed at the comparatively shallow depth of 1,750 feet, an 8¼-inch oil string, carrying 513 feet of 80-mesh screen, and 1,150 feet of 3-inch tubing being used to complete the hole. This well replaces Oscar Howard's No. 1 Machada as the best well in the State from a production standpoint, when the time of drilling and capital expenditure is taken into consideration. No. 1 Moynier only required 1,253 feet of 12½-inch in addition to the 8¼-inch oil string. The company has staked location for No. 2 and, because of the success attained in No. 1, very little time will be lost in spudding No. 2. On the Smith property, No. 1 is at present pumping 130 bbls. of 18.5 gravity oil, which cuts 4 per cent. The company has staked location for No. 5 but material has not yet been hauled in.

The Standard only secured a small pumper in No. 3 on Vickers lease No. 1, which was put on the beam at 1,919 feet. Initial production test credits the well with 130 bbls. of 15.1 gravity oil, which cuts 8 per cent sand. Material is on ground for Nos. 4 and 5 but rig construction has not yet been started. On Vickers lease No. 2 the Standard is building rigs for Nos. 2 and 3 but is held up in No. 1 at 2,475 feet because of bad pipe. Foundation is being laid for No. 1 on Vickers lease No. 3.

The Standard, although production was first secured on the Los Angeles Investment property, has found the Vickers lease more productive and is consequently pushing development work on the latter property. The principal factor which has led to the rapid development of the Vickers lease, however, is the amount of drilling being done on adjoining property. Lease requirements and the necessity of preventing drainage has resulted in rapid drilling on Vickers leases Nos. 1, 2 and 3. The Los Angeles Investment property is less productive and not subject to immediate drainage. The company is not neglecting the Investment property however, as indicated by the three new rigs going up for Nos. 4, 5 and 6 on Los Angeles Investment lease No. 1 and the deep test and prospective shallow producer on Los Angeles Investment lease No. 2. Well No. 1 on the latter property and No. 1 Potter Smith, the company's two deep tests, are both held up with fishing jobs, the former at 5,197 feet and the latter at 6,036 feet. No. 1 Stocker, while not yet classed as a duster, is getting quite deep. The log shows the present depth to be 4,531 feet.

**Doheny Operations**

The Petroleum Securities, Dohney, is in the oil sand in both Nos. 3 and 4 on the Cone property and should finish them within the next few days as flowing wells good for around 200 bbls. each. No. 2, which has just been spudded in, is rotating at 625 feet, while No. 6 is being rigged up. No. 1 Dabney-Lloyd is also rigging up, while a new rig is being erected for No. 1 Ruble. The Shell has located its first well in this field on the Artesia Land & Water Co.'s property and, judging by this company's efficient field department, should begin making hole within a very short time. The lease is not very favorably located, if the present trend of development can be taken as a criterion. The field may, of course, extend to the Shell's property, which will hereafter be known as the Ridge lease, but the well at present can be classified as a wildcat or extension test. Oscar Howard has resumed his former No. 2 Machada No. 1 Dominguez and staked a new location for No. 2 Machada. The lease name, Machada, will also be changed within the next week or so in order to avoid confusion and will in the future be designated as the Venezuela lease. The Mohawk Oil Co. will offset the Petroleum Midway's No. 1 Smith with No. 3 Machada and is hauling in material for immediate work. The Associated drilled through a light oil sand in No. 1 Vickers at 1,665 feet but it was not of sufficient thickness to warrant a test and the hole has been carried down to 1,950 feet. No. 2 Vickers was spudded in early in the week and should follow No. 1 on production within a short time if the lease proves productive. The Superior Oil Co. is offsetting Oscar Howard's No. 1 Domingues but, judging by the slow progress being made on the rig, will probably not start drilling for another week or two. The Wilshire Oil Co. has blocked up some town lots in the Nolan tract and is hauling in material for its first hole.

**Long Beach**

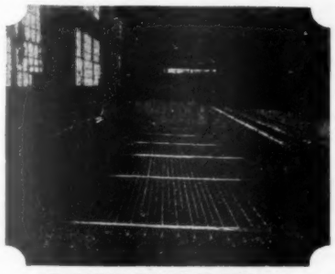
There were two new wells put on production at Long Beach during the past

**TANKER SHIPMENTS FROM LOS ANGELES TO ATLANTIC AND GULF COAST PORTS**

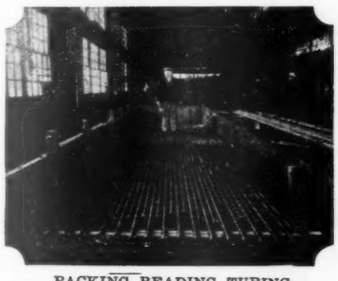
Following is a list of tankers, date departed, destination, kind of cargo and amount in barrels:

| | |
|---|---|
| J. C. Donnell, March 18, Philadelphia, crude | 103,648 |
| Argon, March 19, Providence, fuel | 68,594 |
| Bidwell, March 19, Philadelphia, crude | 75,129 |
| W. S. Rheem, March 20, New York, crude | 90,184 |
| S. C. T. Dodd, March 20, New York, refined | 76,488 |
| Derbyline, March 21, Boston, crude | 74,229 |
| James McGee, March 21, New York, crude | 118,995 |
| **Coastwise** | |
| K. R. Kingsbury, March 16, Richmond, crude | 85,160 |
| W. S. Rheem, March 16, Richmond, crude | 95,118 |
| Utacarbon, March 16, Martinez, crude | 75,097 |
| Capt. A. F. Lucas, March 17, Point Wells, refined | 37,003 |
| Los Angeles, March 17, Vancouver, fuel | 75,741 |
| Coalinga, March 17, Avon, crude | 75,791 |
| La Purisima, March 17, Seattle, refined | 37,854 |
| Paul Shoup, March 17, Avon, crude | 80,193 |
| W. S. Miller, March 19, Richmond, crude | 74,206 |
| D. G. Scofield, March 20, Richmond, crude | 77,152 |
| El Segundo, March 20, San Diego, refined | 33,168 |
| Tejon, March 20, Seattle, fuel | 75,016 |
| Charlie Watson, March 21, San Diego, refined | 17,814 |
| K. R. Kingsbury, March 22, Richmond, crude | 84,111 |
| Mericos H. Whittier, March 22, Avon, crude | 80,976 |
| **Exports** | |
| Liebre, March 16, Orient, fuel | 65,107 |
| Mina Brea (Br.), March 20, Vancouver, crude | 44,982 |
| San Salvador (Br.), March 22, England, refined | 70,919 |
| Chuky (Br.), March 22, Chile, fuel | 65,947 |
| Stockton, March 22, Manila, fuel | 65,762 |
| **From Ventura** | |
| Frank H. Buck, March 17, Avon, crude | 63,095 |
| **From Port San Luis** | |
| Utacarbon, March 21, Oleum, crude | 75,223 |
| Coalinga, March 22, Chile, fuel | 72,906 |
| **From San Francisco** | |
| Byron D. Benson, March 16, New York, tops | 81,296 |
| Col. E. L. Drake, March 16, Honolulu, refined | 36,715 |
| H. M. Storey, March 17, Astoria, fuel | 96,147 |
| H. T. Harper, March 17, Astoria, refined | 31,227 |
| Atlas, March 20, Grays Harbor, refined | 12,840 |
| Los Alamos, March 20, Portland, refined | 43,202 |
| Swiftscout, March 20, Fall River, tops | 78,862 |
| Paul Shoup, March 23, Balboa, fuel | 78,912 |

PACKING READING TUBING
First, the bottom of car is made absolutely level and strong, straight side supports are put in place.



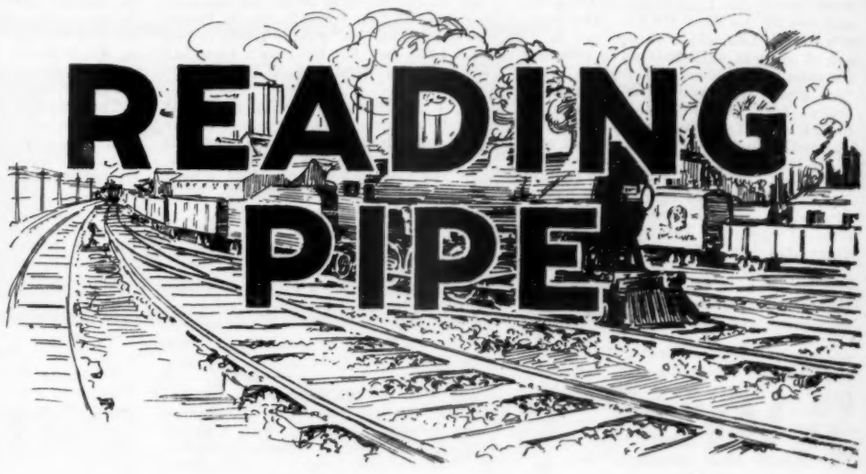
PACKING READING TUBING
Second, each layer of tubing is separated from the others by strips of wood running from side to side of the car.



PACKING READING TUBING
Third, each layer is thoroughly sprayed with a crude oil solution before the next is added.

PACKING READING TUBING
Fourth, care is taken to insure full layers of tubing to prevent side motion.

PACKING READING TUBING
Fifth, then finally the entire shipment is boxed in the car in such a way that the tubing is immovable in transit.

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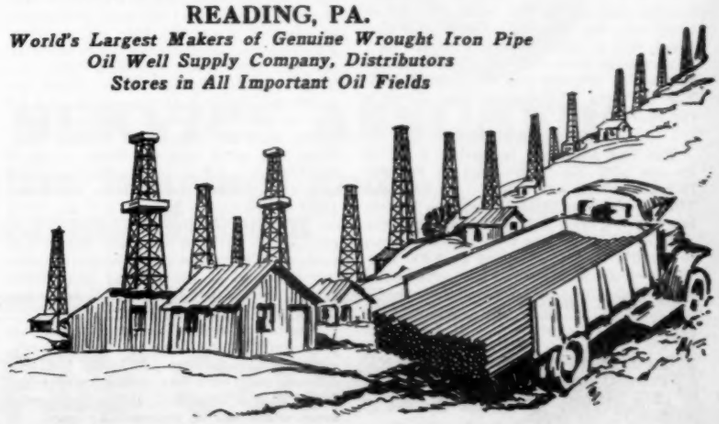

week, one by the Pugh-Miller Drilling Co. and one by the Shell Oil Co. The former's No. 1 Doolarhide turned out to be one of the best wells finished in this field for some time. Flowing through a 1-inch bean under a pressure of 550 pounds, it tanked 1,502 bbls. of 24.6 gravity oil in the 24 hours following its completion. It was drilled to 4,073 feet and finished with a 4½-inch liner, 296 feet of which was perforated. The Pugh-Miller Drilling Co. and Art Delaney carried this hole to completion in quick time and at a minimum of expense. The Shell's new producer was No. 7 Coseboom, which was put on the beam at 4,415 feet after being finished with a 4½-inch liner carrying 250 feet of 60-mesh screen. The initial production was 140 bbls. of 17.3 gravity oil, which cut 20 per cent. The well pumped 115 bbls. yesterday, 10 per cent of which was water and sand. The Shell put No. 4-A Alamitos on the beam after cleaning it out to bottom, 4,843 feet, but did not succeeding in getting clean production. It pumped 50 bbls. of oil and 100 bbls. of water during the test.

**Dominguez**

There were no developments of interest in the Dominguez Field during the week and, since there was no new production added, the field's output during this period showed a slight decrease. The Shell put No. 1 Manuel on a short production test but as soon as it was determined that a water shut-off had not been effected, the flow was killed. Neither the Shell nor Union is doing any great amount of development work, both being contented to conserve this crude for future use. The Marland is making preparations to land a string of 11-inch in its deep test, No. 7 Dominguez, which is now at 4,091 feet. The company has temporarily suspended work in both Nos. 4 and 6 on the Dominguez lease. The United Oil Co. is still working with No. 2 Dominguez, which ran into bottom water at 4,442 feet, necessitating a withdrawal to 4,240 feet. No. 1 Susana of the Henderson Petroleum is standing with a plug at 4,122 feet.

**Huntington Beach**

There were two workovers finished at Huntington Beach during the past seven days. The Sun Oil Co.'s No. 5, which was redrilled and deepened from 3,316 feet to 3,670 feet, came in flowing under a pressure of 450 pounds. At the former depth it was a mediocre pumper but, upon being rejuvenated, it tanked 650 bbls. of clean 27.7 gravity oil during the first full day's test. This well indicates that Huntington Beach is still good for considerable production around the 3,600-foot level and it would not be surprising if several nearby producers were deepened in the hope of picking up the sand encountered by the Sun. The Associated Oil Co. effectively plugged back No. 21 Miley Keck from 4,716 feet to 3,370 feet and returned this workover to production as a 95-bbl. pumper, the oil testing 22.6 degrees and showing a cut of 5 per cent.

The Shell, while making a final test of No. 2 Kettler at Torrance, which was drilled to 5,373 feet, found a little oil and may perhaps secure commercial production in the upper zone. The hole was plugged back to 3,875 feet and the 8¼-inch preforated between 3,850 feet and 3,865 feet. The only new well finished in this area during the week was No. 3 Poggi of the General Petroleum Co., which was a small pumper at 3,825 feet. A maximum production of 51 bbls. is the best which the well can be credited with. The oil tests 19.2 degrees and shows a cut of 3 per cent.

**Rideout Heights**

The Pan-American is having a lot of trouble with No. 1 Jesurum at Rideout Heights, which was drilled to 4,404 feet. The log shows a little oil sand on bottom but the 8¼-inch collapsed near the top and the company has been unable to run in the 6¼-inch and cement at 4,400 feet. The Petroleum Midway has practically suspended work on all four of its wells in this area, although the company may give No. 1 Hamburg a test at 3,815 feet before pulling out. The Standard, after failing to develop deep production in No. 1 Patton at 6,050 feet, has plugged back to 1,275 feet and may secure shallow production at this depth.

In the old Whittier Field the company reports 4,655 feet of hole in No. 21 Home. The Central Oil Co. is going ahead in No. 74 at 1,235 feet, but the Ocean View has encountered a slight setback in No. 2 at 3,860 feet.

W. T. McGinley spudded in No. 21 at Montebello during the early part of the week and, although the exact depth is not available, the well should at least show 100 feet of hole. No. 19 has been cemented at 3,145 feet, while No. 20 is rotating at 2,564 feet.

**Richfield**

The Delaney-Craig Oil Co., a new organization financed by Art Delaney and Allen Craig, formerly a field superintendent for the Petroleum Midway, is making preparations to start a well on part of the Standard's old Kraemer No. 1 lease, quitclaimed some time ago by this company. A rig is being erected close to the south line of the Standard's present Kraemer lease. Kohlbush & Johnson have finished deepening the Richfield United Oil Co.'s No. 1 from 3,230 feet to 3,365 feet and, judging by indications, should finish about a 250-bbl. pumper. The Union took a core in No. 1 Tuffree, its Richfield outpost, at 4,600 feet but the sample showed the formation to be a sandy shale and not an oil sand as was anticipated. The Chicksan Oil Co. is making fairly good progress with No. 2 Bradford, being carried to the deep zone, discovered by this company several months ago. The company is drilling ahead in No. 2 at 4,225 feet and will spud in No. 3 within the next day or two.

**Fullerton**

The Union spudded in its extension well, No. 1 Olinda at Fullerton and is reaming out to bottom, 500 feet, preparatory to landing a string of stovepipe. The Chanslor-Canfield Oil Co. started work on No. 6 Olinda at about the same time and is grading for No. 97. The Fullerton Oil Co. has been drilling through a boulder formation and progress in No. 19, now at 1,445 feet, has been necessarily slow. The Shell is drilling ahead in No. 3-A Pico at 1,400 feet and is rigging up No. 3 Fisher for early work. On the Columbia lease No. 32 has been cleaned out to bottom, 3,200 feet.

The Standard is reaming No. 40 Emory at Coyote, which has been drilled to 4,007 feet, and will land a string of 8¼-inch as soon as the hole has been put in shape. On the Murphy lease, No. 100 is standing suspended at 4,163 feet, while No. 101 is going ahead at 3,970 feet and No. 102 is making hole at 4,165 feet. Krohn-Blake & Hazzard are making preparations to recement the Calokla Oil Co.'s No. 3 for the fourth or fifth time at 4,127 feet. Water trouble has prevented a water shutoff being secured on the 6¼-inch at 4,000 feet.

**Seal Beach**

The Shell finished cleaning out No. 2 Bryant at Seal Beach and immediately started making new hole. The well has been carried down to 4,410 feet with a prospective completion depth around 4,600 feet. No. 3 Bryant, at 4,170 feet, is being temporarily delayed with pipe trouble. No. 1 is flowing 50 bbls. of oil and 1,700 bbls. of water. No. 1 Bixby has been plugged back from 6,142 feet to 4,554 feet. There was no improvement in the Newport area. The Bruce Oil Co. is drilling ahead in well No. 2 at 192 feet, while the Interstate has spudded in No. 2 Mesa and is making hole at 200 feet. No. 1 on the latter lease is being tested out after plugging back from 3,350 feet to 785 feet. The Interstate will also plug back No. 1 Morris now at 3,145 feet, and No. 1 Heights, carried to 3,468 feet. The Associated encountered a very satisfactory showing of oil and gas in No. 101 Fox in the Beverly Hills area at 3,145 feet, a perfect water shutoff having been secured at 3,007 feet.

**Miscellaneous Wildcats**

The Shell's No. 1 Virginia at Los Cerritos, northwest of Long Beach, looks like an early abandonment, inasmuch as nothing has been picked up from the grass roots to 5,400 feet. No. 1 Benson of the Miller Oil Co. at Artesia also looks like an abandonment as it has been standing idle for several months at 5,238 feet. The Clairmont Oil & Gas Co. started a new wildcat at Claremont and is at present making hole in a blue clay at 620 feet. The Marland is running true to form at Davidson City with a 4,200-foot hole which has so far been devoid of even the slightest indication. This wildcat was only given an outside chance for completion and, although production may yet be developed, nothing has been found to change original predictions. The Winwell Oil Co. picked up a small showing in No. 1 Dome at Hawthorne and the hole will be carried to 5,585 feet, another 100 feet, and a 3-inch combination string landed. The Midway Gas Co. is building a rig for No. 1 Luzinger in the Hawthorne-Lawndale area in the hope of developing a substantial gas production. It will be recalled that several years ago the Milwaukee Trust found gas in this area, one well blowing rocks, sand and gravel for a period of two days before sanding up. This attempt at commercial gas production will be watched with interest.

**Field Operations**

Oil field operations reported to the State Oil and Gas Supervisor show 36 new wells started, as compared with 24 during the previous week, bringing the total new wells this year to 261, as compared with 355 at the same date last year. Of the 36 notices to drill filed this week, 12 were for wells in the Rosecrans Field, 3 at Torrance, 4 at Inglewood, 2 at Long Beach, 1 at Montebello, 1 at Dominguez, 2 at Ventura, 1 in San Luis Obispo County, 1 in San Mateo County, 1 in the Santa Maria Field, 1 at Coalinga and 7 in the fields of Kern County. There were 18 tests for water shutoff made this week, 8 more than during the preceding seven days. Deepening or redrilling jobs totaled 17, as compared with 21 during the previous week. Thirteen holes were abandoned, bringing the total for the current year to date to 89, as compared with 135 at the same date last year. Permits were issued for the following new wells, and, while they may not have actually been spudded in, the intention to do so is indicated by the application:

**Rosecrans**

Location, Company, Well—
7-3-13 Elbe Oil Land Development Co. 1.
7-3-13 Elbe Oil Land Development Co. 2.
7-3-13 Elbe Oil Land Development Co. 3.
Golden State Refineries, Inc.—
7-3-13 Rydal 1.
7-3-13 Marine Corp. 40.
7-3-13 Nathan W. Hale 1.
Superior Oil Co.—
20-3-13 Maxwell Comm. 7.
20-3-13 Maxwell Comm. 6.
20-3-13 Maxwell Comm. 4.
The Twin State Oil Co.—
7-3-13 Green 1.
7-3-13 Walker-Wilson & Gordon 1.

**Inglewood**

Associated Oil Co.—
7-2-14 Vickers 2.
Petroleum Securities Co.—
8-2-14 Cone 2.
8-2-14 Cone 6.
Standard Oil Co.—
17-2-14 L. A. Investment 1-4.

**Torrance**

Superior Oil Co.—
30-4-13 Torrance 50.
19-4-13 Torrance 62.
Shell Co.—
9-4-14 Fenger 3.

**Long Beach**

Hub Oil Co.—
13-4-13 Woodward 1.
24-4-13 Roger 1.

**Dominguez**

The United Oil Co. and Henderson Pet. Corp.—
3-4-13 Dominguez 5.

**Montebello**

6-22-11 McGinley Oil Co. 21.

**Ventura**

Shell Co.—
28-3-23 Edison 4.
28-3-23 Gosnell 14.

**San Luis Obispo County**

Henry R. Dabney—
—-27-10 Emericka 1.

**San Mateo County**

17- 6- 5 A. & O. Oil Co. 1.

**Santa Maria**

General Pet. Corp.—
36-10-25 Bradley 2.

**Midway-Sunset**

18-11-23 Frank O. Chittenden 1.
24-31-22 Midway Pacific Oil Co. 10.
35-12-24 Midway Oil Co. 350.
36-32-23 The Ransom Oil Co. 2.

**McKittrick**

28-30-22 Oleo Fluo Co. 2.
Standard Oil Co.—
25-29-21 Weston 1.

**Wheeler Ridge**

Standard Oil Co.—
28-11-20 Kern Co. Lease 2, 17.

**Coalinga**

1-20-14 Penn Coalinga Pet. Co. 14.

# News from Fields of Canada

By Victor Lauriston

CHATHAM, Ont., March 28.—A factor of importance in Canadian development work is the announcement in the new Federal budget of a drastic reduction in the tariff on drilling machinery. The budget provides for a tariff of 5 per cent on drilling machinery capable of drilling wells 2,000 feet or more in depth and on machinery for handling casing over 4 inches in diameter, and on rope 2,100 feet or more in length. The previous tariff was 27½ per cent. The reduction does not apply apparently to motive power, but may apparently be interpreted to apply to casing used for deep drilling. Such drilling equipment is also exempted from sales tax.

Following the important discovery of crude gasoline and wet gas in Royalite Oil Co.'s No. 4, Section 7-20-2w5, in the Turner Valley Field southwest of Calgary, the company is going ahead with more extensive development. Royalite No. 4 is producing around 20,000,000 feet of wet gas with an incidental production of approximately 300 bbls. of gasoline. Two powerful combination units of standard and cable tools are now being delivered in the Turner Valley Field for additional drilling this season; and as soon as weather conditions permit, operations will be commenced on new locations, one north and the other south of Royalite No. 4. It is generally believed that one of these tests will be drilled on LSD 13, Section 7-20-2w5, and the other on LSD 16, Section 31-19-2w5. It is planned to carry down with the rotary equipment as far as the principal producing gas sand of the present field, while drilling below that horizon will be undertaken with cable tools.

The use of rotary equipment is an experiment in the Turner Valley Field, many drillers having previously held the opinion that owing to the sharply tilted formations in this field, the rotary equipment could not be successfully used. If this condition does not interfere, however, the new outfits are expected to make far more rapid progress, and the present season may see both tests finished. Royalite No. 4 got its main production around 3,740 feet but the new tests may be carried deeper.

In the Far North, the only projected activity of Imperial Oil, Ltd. this season in the Mackenzie district is the completion of the well started last year. As the test had already reached a depth of 975 feet when the 1924 drilling season closed, there should be no difficulty in making the test conclusive during the coming drilling season.

The only Imperial Oil, Ltd. outfit at present active in the Canadian West is that at Coalspur No. 2, in the foothills west of Edmonton. This outfit has been drilling pretty well through the winter and at last reports had reached a depth of 3,330 feet in 10-inch hole. As soon as weather permits, work will be resumed on the Imperial's No. 2 Dead Horse Coulee, east of Coutts; on the Rogers-Imperial gasser on Section 29-1-11w4; and on the Rice Creek test, in the Willow Creek Field west of Nanton. No further drilling will be undertaken by Imperial Oil, Ltd. in the Irma-Wainwright area.

In southern Alberta, the Gypsy Oil Co. is reported to be securing acreage in the eastern section of the Sweetgrass district. The Producers & Refiners Corp. had a representative in southern Alberta recently, but though it has some holdings on the Canadian side, no drilling will be done at present. L. R. Olsen and associates are arranging for a test west of Coutts. Mr. Faulkner, formerly of the Standard refinery at Lethbridge, has been appointed superintendent of the Alberta Refining Co. plant at Coutts. The Alberta Refining Co. is extending its plant, has added to its equipment two tank cars purchased in Montreal, and is building a

(Continued on Page 98)

# IDEAL

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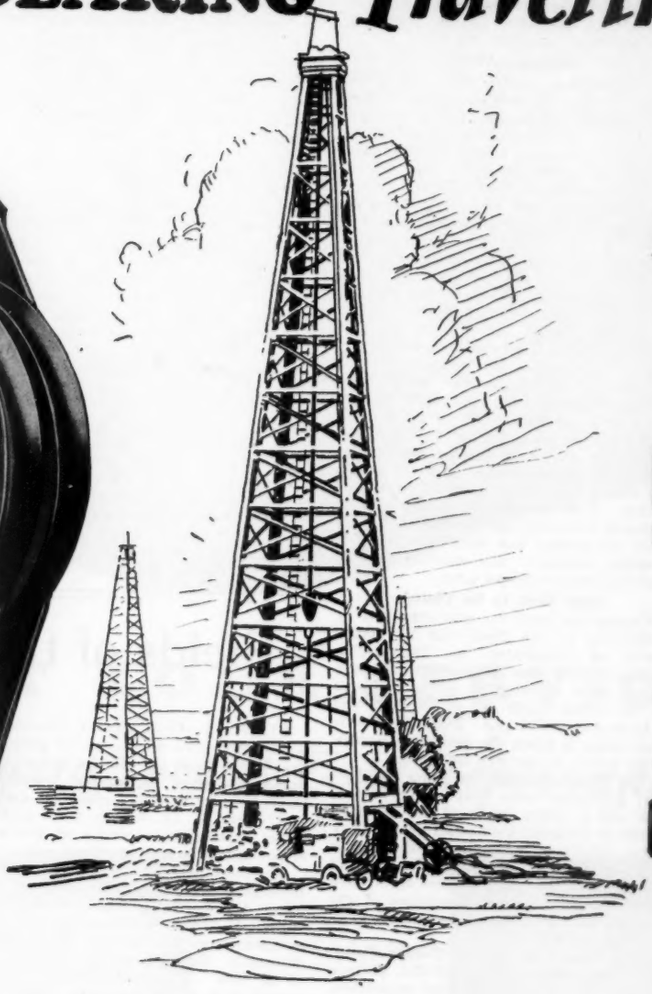

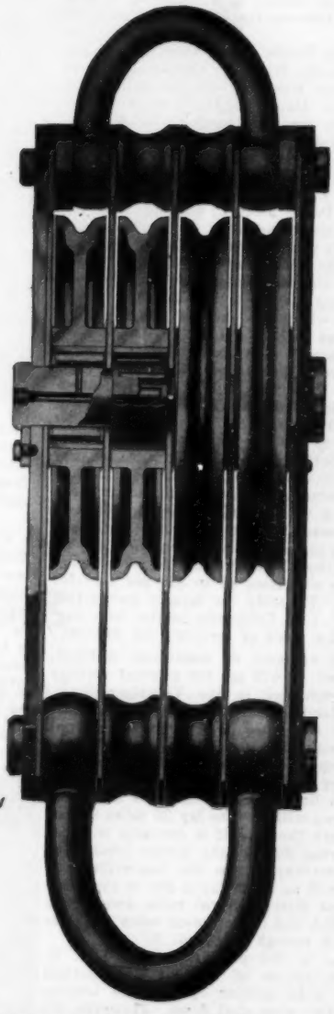

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# Kentucky—Tennessee

By Vern T. Whitney

**Three good producers in Cumberland County, Tennessee; Daniel Boone and South Kentucky companies deepen dry hole in Kettle Creek and get 12 bbls. an hour. Combest & Morris well in Sulphur Creek makes 25 bbls. in two hours and Alta Oil Co. has 25-bbl. producer. Tennessee and Mississippi wildcatting.**

GLASGOW, Ky., March 30.—The completion of three good wells in the Cumberland County, Kentucky, field, the interest being manifested in the Clay and Jackson Counties, Tennessee, and the amount of wildcat work underway in Mississippi features the week in the southern fields.

In the Kettle Creek area of Cumberland County, Kentucky, the Daniel Boone and South Kentucky Oil Cos. drilled No. 3 on the Maude Blythe from 487 feet, where it was originally a dry hole, to 497 feet where the well started flowing 12 bbls. per hour, naturally. In the northern extension of the Sulphur Creek Pool, Carter, Combest & Morris' No. 3 Huddleston-Payne made 25 bbls. the first two hours after being tubed and placed on the jack. It was finished at 971 feet, 386 feet below the Pencil Cave at which depth the famous Coop well of Raydure and Son is producing. On the west fork of Crocus Creek, where the famous old American well was drilled, the Alta Oil Co.'s No. 1 Chetham is estimated at better than 25 bbls. from the second Sunnybrook sand at 500 feet. On tapping this formation the hole filled up 150 feet with oil the first 30 minutes.

Due to recent completions in the Tinsley's Bottom area of Clay and Jackson Counties, Tennessee, the little hamlets of Gainsboro and Cookeville have been crowded with oil men, scouts, geologists and lease brokers. During the past week a large amount of acreage was purchased by different concerns which paid all the way from $1 to $30 per acre for leases. Probably the largest transaction was that of Louisville parties who purchased a block of territory for $10,000.

Just as soon as conditions warrant, this section will see the greatest activity ever evidenced in the Volunteer State. The Louisville Refining Co., which recently completed a modern refinery at Louisville, Ky., as well as the Paragon Development Co., one of the older purchasing companies, is planning to build a pipe line system to the new field. The Paragon will have to lay 25 miles of line to reach the pool if it connects with its gathering lines in the Kettle Creek area in Kentucky, while the Louisville concern will no doubt lay a line to the Cumberland River, several miles away from the field, and barge the oil when the river is high enough to permit it.

Due to the serious illness of A. E. Dafoe, opener of the Tinsley's Bottom Pool, wells drilling by the firm bearing his name were shut down. However, the producing wells were pumped at intervals for the benefit of producers who came near and far to give them the once over.

**Mississippi Outlook**

The outlook for oil production in Mississippi is brighter at this time than it has ever been and with the development work now under way together with that contemplated it is logical to presume that some commercial production will be obtained during the current year. Development done in the past has been of the most haphazard type and in most cases where drilling was undertaken by local capital there was always a lack of funds at the critical period, causing long delays and in some cases the abandonment of wells.

According to reports, hotel lobbies over the State are well represented by one or more geologists, and lease hounds, both male and female, as well as by field men who are mapping structures.

**Finkbine Well**

The Finkbine Lumber Co.'s No. 1 fee in the center of Section 7-3-4 in the southeastern portion of Rankin County is reported to have had a very encouraging showing of oil in a sand at 3,431 feet which was passed up and the hole drilled deeper to a total depth of 3,661 feet where the drill entered salt water. A string of cable tools were lost at this depth which could not be recovered and after attempts made to pull the 5⅞-inch casing set at 3,395 feet proved fruitless the sand was cemented for protection and the rig moved to a new location in the center of Section 1-3-3.

The Finkbine Lumber Co., which is the largest corporation in the entire State, owns in the neighborhood of 7,000 acres of land in fee in Rankin County and is planning to do quite a bit of experimenal work. The company has cut off all of the timber on its lands surrounding the first test and expects to go after oil in the same thorough manner as it handles timber. Four hundred acres sold by this company two years ago for $2.50 per acre, after the timber had been removed, for farming purposes, was recently bought back by them for $9 per acre.

**Noel Well to be Tested**

Casing has been set and cemented at 2,026 feet in the Noel well 2½ miles north of Charleston in Tallahatchie County. This test is reported to have had a good showing of oil in a break in the Selma Chalk out of which flowed a large amount of gas. The hole is now shut down to allow the cement to harden after which a test will be made.

The State geologist and other commercial geologists claim that larger quantities and a better grade of oil has been found in Tallahatchie County than in any other county in Mississippi and expect a commercial well to be developed near Charleston. To date, several tests have been drilled and large quantities of gas and oil have been found, but not in commercial quantities.

The Free Run well on Tohova Creek, near Coxburg, in Section 18-13-1, Holmes County, being drilled by local capitalists, is reported below 1,365 feet in what is thought to be the Selma chalk. Several oil showings have been encountered, the first being at 1,180 feet at which point the drill entered a well saturated sand.

Preparations are being made for the spudding in of a well north of the city limits of Jackson in Rankin County, which is expected to test oil possibilities for this area. Derrick timbers and machinery have been hauled out to the location which is on the State Hospital lands, and operations should be underway as this is going to press. It is reported the test is being financed by the Royal Dutch-Shell Oil Co. New York parties are moving a rig to a location just east of the Pearl River, 2 miles east of Jackson, where a test will be made shortly.

The Mississippi Oil & Gas Syndicate's well on the Graham tract, 1 mile south of Forest in Section 21-6-8, Scott County, has resumed drilling after being shut down at 4,270 feet since last December. The drill is now reported to be well in the Selma chalk. Eight and one-quarter inch casing was set at 1,804 feet and the balance of the hole was drilled open. This is the deepest hole in the State of which any authentic log has been kept.

The Donald Oil Co.'s venture on the Donald farm, 5 miles west of Richton in Perry County, is shut down at 3,000 feet. The rig has been moved off the location and shipped to Post Gibson, Miss. As soon as possible another rig will be built and the hole drilled deeper.

The Bill Young well in the suburbs of Port Gibson in Claiborne County will be started shortly. The derrick has already been erected and the machinery installed. A hole recently drilled in this county was abandoned at 1,400 feet. In Section 56-11-1, the Mitchell Zinc well was shut down waiting for the 8-inch casing to set so that a test can be made. Both oil and gas showings are reported.

A test is to be started in the very near future near Winona, Montgomery County. The hole in this county, drilled a year ago, encountered a good sand with a small showing of oil but was abandoned.

It is reported two tests will be started in the immediate future in Pontotoc County, and, that a wildcat will also be made in Yazoo County on a structure worked out by the United States Geological Survey.

**Other Mississippi Wells**

In Chickasaw County, the Danner Oil Co.'s No. 2 J. Flarity, Section 8-13-3, shut down at 2,700 feet; the Gulf Development Co.'s test near West Point in Clay County is a rig; in Section 37-7-3, Union County, Minyard Well Co.'s No. 1 Woodson, shut down at 1,200 feet; same concerns' No. 1 Sappington, Section 27-7-2, is a rig; the Mississippi Exploration Co.'s third attempt on the Poor Farm, 3 miles east of Magnolia in Pike County, is a rig; in Franklin County, Fletchering and others' test on the McGahee, Section 1-5-3, southwest of Jackson was shut down at 3,100 feet; B. H. Whites' No. 1 fee, Section 15-1-3, Copish County, was progressing at 2,970 feet; Marshall Oil Co.'s No. 1 Didlake, Section 6-2-1, shut down at 1,803 feet; in Section 35-27-2 of Panola County, the Courtland Oil Co.'s No. 2 Klihne is drilling at 2,900 feet; Borden and others' test near Grenada in Grenada County, shut down at 650 feet; Madison County Oil Co.'s No. 1 Nichols near Madison, Section 7-10-4, Madison County, shut down at 2,500 feet; tests being made in Jefferson, Jackson, Lafayette, Lowdnes, Leake, Washington, Itawamba, Leake, and Calhoun Counties are reported shut down at various depths.

**Alabama Well Going Ahead**

Information was given out several days ago that the drill at the J. English test, 4½ miles south and west of Decatur, Ala., near Austinville, in Section 6-6-4, had reached 3,411 feet. This is said to be the deepest hole in the entire State, and authorities are of the opinion oil will possibly be located when the 3,500-foot level is reached. This belief is founded on the statement of geologists and engineers that the flow of oil somewhere in the Tennessee Valley would be encountered at 3,500 feet.

**Kentucky Wells**

During the past week, 36 completions were recorded in the Blue Grass State. of this number 22 were oil wells with an initial yield of 752 bbls., 10 were dry, 1 was a gasser and 3 were abandoned. Compared with last week, this shows 11 more completions, 9 more producers with

(Continued on Page 88)

# Fields of the Central West

By Whit

FINDLAY, Ohio, March 30.—Seventeen completions were reported from the old Lima Field of northwestern Ohio during the week, as weather conditions cleared up somewhat, allowing drillers and crews to get to the wells and do some work after a couple of weeks of strenuous rains and winds.

The most important of the week's completions was a test drilled by the Bolhimer Oil & Gas Co. on the northwest corner of the A. Bolhimer farm, in the northeast quarter, Section 22, Cynthian Township, Shelby County, with a flush of 25 bbls. This well extends the producing area of the new field a short distance and means that much work will be done there the coming summer season.

Almost at the corporate limits of Payne in Harrison Township, Paulding County, John T. Schunk's second test, 900 feet from the north line and 150 from the west line of the C. C. Springer farm, Section 34, pumped 76 bbls. the first 24 hours. Top of Trenton was found at 1,402 feet and drilled 55½ feet into a total depth of 1,457½ feet, where a second producing sand was encountered and of a higher gravity oil. No. 3 same farm, is drilling and rig building for No. 4, while adjoining the U. S. A. Oil Co. is drilling No. 3 A. M. Bailey and putting in a rig for No. 4, same section.

**Wood County**

Just out of Bowling Green, in Plain Township, Wood County, Schmidt, Hamman and Huston's No. 2 well 1,225 feet from the south line and 225 from the east line of the Harley Avery, known as the R. & A. Very farm, in the southeast quarter Section 22, pumped 20 bbls. from a total depth of 1,526 feet. In the same township, the Ohio Oil Co.'s No. 1 on the northwest corner of the O. D. Rager farm, in the northeast quarter Section 32, pumped off at 2 bbls. at 1,457 feet.

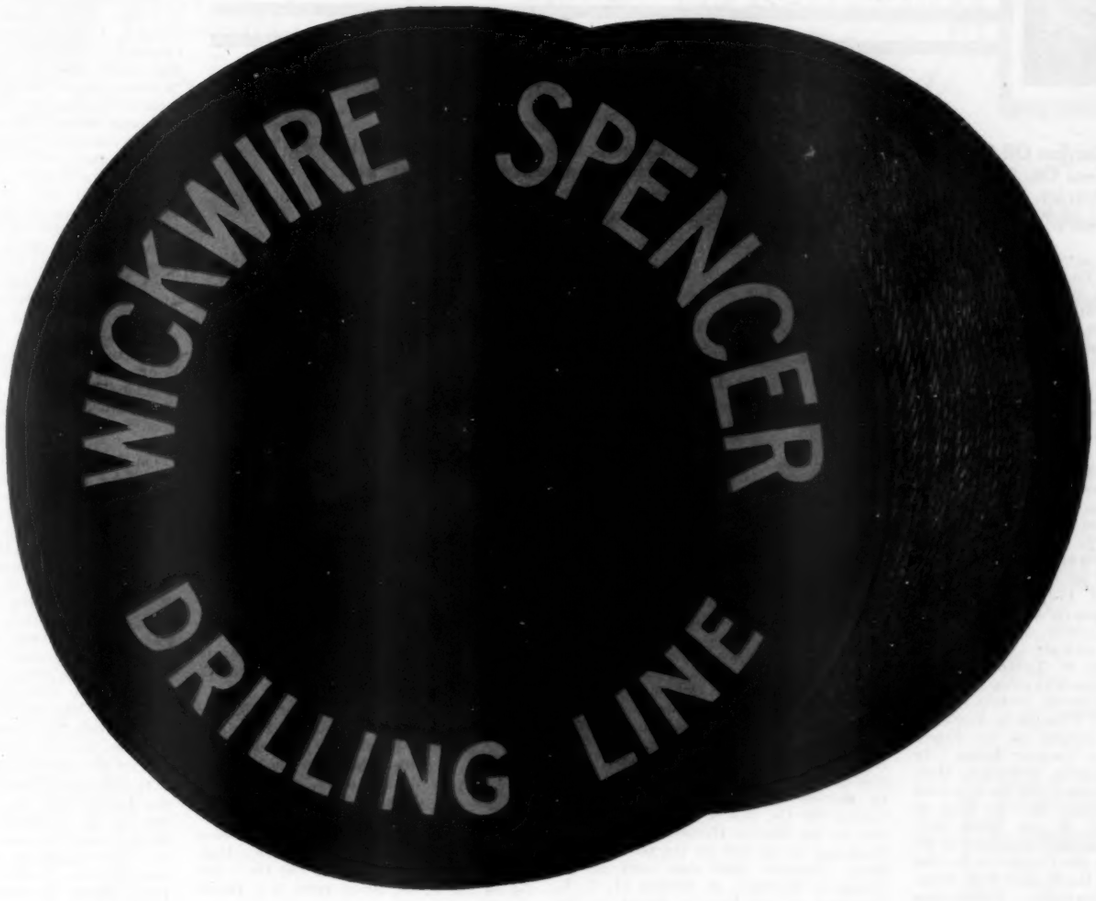
Between Bowling Green and Perrysburg Township, Wood County, John E. Welton's No. 3 being 1,250 feet from the south line and 250 from the east line of the George DeVaerne farm, in the southeast quarter, Section 29, pumped 5 bbls. Top of sand at 1,238 feet and drilled 42 feet in. In the same township, Lew W. Johnson's No. 5 well, 700 feet from the north line and 150 feet from the west line of the Alexandex Beard farm, Section 33, pumped 25 bbls. Top of sand found at 1,240 feet and drilled 50 feet in.

In Lake Township, Wood County, near Walbridge, Charles F. Zeising and others are drilling No. 7 Emilt Brendt farm, Section 36, and Lants, Gregg and Schultz are drilling No. 6 Fred Schultz farm, same section. In Freedom Township, near Pemberville, same county, the Ohio Oil Co. pulled out and abandoned old No. 2 on the T. Zepernick farm, Section 31.

In Pleasants Township, Hancock County, in the McComb district, the Bath Township Oil Co.'s No. 5, 750 feet from the south line and 1,250 feet from the east line of the J. R. Heers farm, in the southeast quarter Section 23, produced 35 bbls. and caught fire, destroying the drilling tools and rig. In Cass Township, the Ohio Oil Co.'s No. 19 on the James E. Hudson No. 2 farm, Section

(Continued on Page 84)

# Wickwire Wire Lines

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# Pennsylvania-West Virginia

By D. S. Wakenight

**Gordon Oil Co. gets 180-bbl. well in Hocking County, Ohio, and Sunday Creek Coal Co. 172-bbl. producer in Perry County. Holmes County developing gas district. Pure Oil Co. has 20-bbl. well in Boone County, West Virginia. Carnegie Natural Gas Co. well estimated 100 bbls., Greene County, Pennsylvania.**

PITTSBURGH, Pa., March 30.—The feature of the week in development work was the completion of two good producers in the deep sand territory in southeastern Ohio. The better of the two is the Gordon Oil Co.'s No. 3 on the Robert Stone farm, located in the southeast quarter of Section 24, Washington Township, Hocking County. The well produced 180 bbls. the first 24 hours after drilled through and shot in the Clinton sand. The location is 700 feet north of the Ohio Falls Oil, Gas & Supply Co.'s test on the John Hoskins farm. In the northeast quarter of Section 35, Coal Township, Perry County, the Sunday Creek Coal Co. completed and shot in the same formation No. 123 on its own property. The well produced 172 bbls. the first 24 hours. In Section 7, Harrison Township, Muskingum County, the Carter Oil Co. has a 5-bbl. pumper in the Berea grit at a test on the W. T. Hutson farm. In Lot 22, Franklin Township, Licking County, W. W. & A. T. Wehrle have a light pumper at No. 5 on the L. E. Smith farm. They are drilling on the James Taylor and Barton Lavenor farms. In Section 23, Washington Township, Monroe County, the Carter Oil Co.'s second test on the Catherine Malone farm is showing very light in the Berea grit. They will give it a test. In Section 20, Reading Township, the Planet Oil Co. has started to drill on the S. B. Dittoe farm. In Lawrence Township, Washington County, O. D. Jones is drilling on the Carrie Bartell farm.

### Holmes County Gasser

One-half mile east of the Central Ohio Gas Co.'s gassers on the U. S. Davenport farm, in Lot 4, Monroe Township, Holmes County, the East Ohio Gas Co.'s test on the B. C. Bird farm is a gasser in the Clinton sand good for 750 cubic feet a day. As a producer of gas Holmes County is coming to the front. In the southeast quarter of Section 32, Falls Gore Township, Hocking County, the Mid-West Oil Co. completed in the Clinton sand a test on the J. W. Geiger farm. At three feet in the sand a gas pressure estimated at 2,000,000 feet was developed and drilling suspended. The location is one-half mile west of the Griffin Producing Co.'s production on the Dora Thomas farm.

In Section 20, York Township, Morgan County, Wilbert Swingle completed a test on the Harry Fletcher farm. It is a gasser in the Berea grit good for 1,000,000 feet. The location is three-fourths of a mile west of the Pure Oil Co.'s test on the Ernest Bell farm. In Section 4, Madison Township, Perry County, the Mid-East Oil Co. has the rig completed for a test on the C. L. Hazelett farm. In Sutton Township, Meigs County, W. N. Norris has a 6-bbl. pumper in the Berea grit at a test on the Jasper Jividen farm. In the same district, the Brocalsia Chemical Co. is drilling a test on the Rebecca Cottral farm. The Ohio Fuel Corp. is drilling a second test on the Robert Crew farm. In Newport Township, Washington County, Frank Goddard & Co.'s second test on the Ruth Uppole farm is a 2-bbl. pumper in the Cow Run sand. In the same township, O. S. Reckard & Co.'s test on the Dishler heirs' farm is good for 3 bbls. a day in the Keener sand. John Foutz's No. 8 on the Michael Lemity farm, in Section 27, Bearfield Township, Perry County, is a 3-bbl. pumper in the Berea grit, in Section 33, Pleasant Township, C. L. Bullock & Co. started to drill No. 17 on the John Grannan farm.

### New Work for Licking County

In Lot 1, Hanover Township, Licking County, the Edward H. Everett Co. has made the location for a test on the F. S. Phillips farm. In Lot 9, same township, it made a location on the Daniel Lehman farm, 1,800 feet west of its test on the Lloyd Varner farm. It has also made the location for No. 8 on the Felix Varner farm. It also has made the location for No. 8 on the Felix Claypool farm. In Pike Township, Coshocton County, the Pure Oil Co. is drilling in the Clinton sand at No. 3 on the William L. Norris farm. In Cass Township, Muskingum County, the Trinway Oil & Gas Co. is drilling in the same formation at a second test on the formation at a second test on the Lloyd Fawcett farm. In Section 13, Monroe Township, the East Ohio Gas Co. completed No. 5 on the Thomas O. Connor farm good for 500,000 feet in the Clinton sand. In Section 5, Killbuck Township, the Carter Oil Co. has a light gasser at a test on the Harvey Herman farm, 1 mile northeast of its test on the G. Waltman farm. Located 1,000 feet west of the village of Killbuck, in Section 11, A. L. Harrison & Co. have a duster in the Clinton sand at a test on the Mrs. Ephraim Carpenter farm.

In Section 2, Franklin Township, Licking County, Moore & Adams are drilling to the Berea grit on the T. L. Stevens farm. In Lawrence Township, Washington County, the Peoples Banking & Trust Co. of Marietta started to drill from the Cow Run to the Berea grit No. 15 on the E. Drake farm. In Sunbury Township, Section 6, Monroe County, the Soles Drilling Co. and others are due in the sand at a test on the Gordon Pew farm. In Section 23, Washington Township, Monroe County, the Carter Oil Co. is due in the Berea grit at a second test on the Catherine Malone farm. In Section 15, Knox Township, Columbiana County, the Kirk & Dunn Oil Co. is drilling No. 14 on the Yaggi heirs' farm.

### West Virginia Completions

On Black Lick Run, New Milton district, Doddridge County, the Raccoon Oil & Gas Co. completed in the Big Injun sand No. 3 on the James Kelly farm, a natural producer good for 10 bbls. a day. In DeKalb district, Gilmer County, on Grass run, the Hope Natural Gas Co.'s test on the Floyd Bell farm is a gasser. In Union district, Ritchie County, the same company has a gasser in the Big Injun sand at a test on the Frank Douglass farm.

In Clay district, Wood County, the Ridge Oil Co. completed No. 4 on the Stanley Musser farm, a light pumper in the gas sand. In DeKalb district, Gilmer County, the Hope Natural Gas Co.'s No. 4 on the W. J. Bennett farm is a fair gasser in the Big Injun sand. In Grant district, Wetzel County, the same company has drilled its test on the Rachel L. Lowe farm through the fifth sand to a total depth of 2,810 feet. It is dry in all formations and abandoned. In Union district, Pleasants County, the Monongolia Oil Co. has a duster in the Cow run sand on the D. E. Wagner farm.

### Tests in Marshall County

On Fish Creek, Liberty district, Marshall County, the Lynn Camp Oil & Gas Co. has the rig completed for a test on the Thomas Blake farm. On Cedar run of Fish Creek, same district, the Manufacturers Light & Heat Co. has the rig completed for a second test on the J. R. Jones farm. On Little Grave Creek, Washington district, Wasmuth & Callahan are moving a drilling machine to a location on the William Rogerson farm. In Spencer district, Roane County, the Federal Oil & Gas Co. is drilling down its old No. 16 on the Roberts, Pell and Newman farm. It was formerly a producer in the salt sand. On Anna Maria Creek, Sheridan district, Calhoun County, the Hope Natural Gas Co. is drilling down its old salt sand gasser on the George Davis farm.

In Mannington district, Marion County, West Virginia, the South Penn Oil Co. completed in the 30-foot sand its old No. 9, drilled down to the 30-foot. It is a very light pumper. On Conrads run, Reedy district, Wirt County, the Heck Oil Co. drilled No. 3 on the S. D. Sheppard farm through the Berea grit and dry. In Southwest district, Doddridge County, the Carter Oil Co.'s No. 54 on the S. W. Stout farm is a gasser in the salt sand.

On Little Creek, Spencer district, Roane County, the Carter Oil Co. started to drill a test on the A. J. Runion farm. In Spencer district, the Spencer Oil & Gas Co. is drilling a test on the W. E. Henderson farm. In Murphy district, Ritchie County, the Hope Natural Gas Co. is due in the sand at a test on the Frank Douglass farm. In the same district, the Wright Oil Co. started to drill on the Andrew Goff farm. In Cove district, Doddridge County, the Pittsburgh & West Virginia Gas Co. is due in the Big Injun sand at a test on the W. H. Flesher farm.

### Drilled Deeper

The United Fuel Gas Co. in Smithfield district, Roane County, has drilled deeper into the salt sand No. 5 on the Snider-Dunham farm. It is a light pumper. On Anna Maria Creek, Sheridan district, Calhoun County, the Thomas Crowley Oil Co. has a light gasser in the Big Injun sand at a second test on the William Cooper farm. It was formerly a gasser in the salt sand. On Plum run, Williams district, Wood County, W. G. Decker completed a test on the Elizabeth Compton farm. It is dry in the salt sand. In the same locality and district, F. G. Mixer & Co. have a show for a light pumper on the A. E. Cooper farm. In Murphy district, Ritchie County, the Hope Natural Gas Co. has a gasser in the Big Injun sand on the E. Goff farm. On the waters of Elk run of Two-Mile Creek, Malden district, Kanawha County, the Virginia Gasoline & Oil Co. has a rig completed for a test on the James Beasley farm. Eight miles west of Pine Grove, old territory, Greene district, Wetzel County, T. C. & M. R. Rawe completed No. 3 on the Leonard Morgan farm good for 15 bbls. a day in the Big Injun sand.

On Little Sandy Creek, Elk district, Kanawha County, the United Fuel Gas Co. completed in the Big Injun sand a test on the M. V. Jarrett farm good for 200,000 feet. On the same stream and district, the United Fuel Gas Co.'s test on the Charles Halstead farm is good for 1,000,000 feet of gas in the Big Injun sand. On Big Sandy Creek, Big Sandy district, this company drilled a test on the Vernon Cobb farm through the same formation good for 1,100,000 feet. This location is 1,000 feet east of the test on the Annie Osborne farm. On Three-Mile fork of Coopers Creek, Elk district, the Copenhaver Oil & Gas Co. has the rig completed for a second test on the Grant Copenhaver farm.

In Jefferson district, Pleasants County, the Bailey Gas Co. drilled its test on the J. E. Ambler farm through the Maxon sand showing for a 5-bbl. pumper. This location is 5,000 feet from any previous production. In Union district, White & Casper started with a drilling machine to drill a test on the E. Newland farm. In the same district, the Monongahela Oil Co.'s No. 11 on the Dora E. Wagner farm is a light pumper in the Cow run sand. In Grant district, E. A. Ryan got the same kind of a producer at No. 10 on the T. C. Hammett farm. In Union district, Harrison County, the Reserve Gas Co. has drilled to 2,000 feet on the Chapman Smith farm. This is the Reserve Co.'s proposed deep test. Drilling has been sus

(Continued on Page 80)

# News of Mexican Fields

By George Blardone

TAMPICO, Mexico, March 27.—Apart from Huasteca Petroleum Co.'s (Mexican Petroleum's), big well in the Tierra Blanca sector of the South Fields, (No. 44) already reported, the past week saw some 12 wells completed with four producers capable of producing say 1,650 bbls., and eight failures.

In the Northern Fields three producers were completed in the older sectors of the Panuco Field as follows: Luke Gilliam's No. 1, Lot 13 Lomas y Llanos was finished at 2,149 feet, rated good for 1,000 bbls. This well has much gas accompanying the oil. The other two producers belong to The Texas Co., No. 6, Lot 17 Isleta, being rated 100 bbls. at 2,208 feet, and No. 19, Lot 16 Lomas y Llanos, is a 50-bbl. well at 2,295 feet with a drill stem stuck in the hole.

In the South Fields, Huasteca Petroleum Co.'s No. 54-A Cerro Azul is a head well good for 500 bbls. at a sub-sea level of 1,175 feet. Apropos of Huasteca's No. 44 Tierra Blanca, already referred to, it is of interest to note that this well is located 800 meters west of its original line of producers in this hacienda. This fact, coupled with its shallow depth, (sub-sea level 1,951 feet), the Tierra Blanca considered, gives it an added importance. The South Fields had one failure during the week, Mexican Gulf Oil Co.'s No. 39, Lot 146 Amatlan, finishing a duster in the Mendez shales at 1,950 feet.

In the Northern Fields, the failures follow: La Corona Petroleum Co.'s No. 151, Lot 1 Cacalilao, drilled into salt water at 2,256 feet. East Coast Oil Co.'s No. 446 Ingenio is a duster at 1,950 feet. International Petroleum Co.'s No. 148, Lot 5 Cacalilao, a dry hole at 2,504 feet. Mexican Sinclair Petroleum Corp.'s No. 110, Lot 1 Cacalilao, is the same at 2,244 feet, and another Lot 1 duster is Mexican Atlas Petroleum Corp.'s No. 14, where the drill stopped at 2,250 feet. New England Fuel Oil Co.'s Nos. 4 and 6, Lot 3 Cacalilao both drilled into salt water at 1,750 and 2,070 feet respectively.

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# Petroleum Demand Growing in Canada

## Growing Use of Fuel Oil and Greater Gasoline Requirements Expected to Result in Larger Imports from U. S.

By Victor Lauriston

CHATHAM, Ont., March 30.—In the oil situation, Canada has for many years occupied a position of almost entire dependence upon imported crudes. Canadian fields supply less than 2 per cent of the crude oil required to operate Canadian refineries. The deficiency is made up largely by imports from the United States, though there is an increasing import from the Peruvian fields, where an Imperial Oil, Ltd., subsidiary, the International Petroleum Co. controls the greater part of the crude oil production. The same interests are now developing the Colombian fields.

With a steady decline from year to year in the production of Canadian crude, which for 1924 will, when complete production figures are in, amount to between 150,000 and 175,000 bbls. for the year there has been from year to year a steady and in some respects rapid increase in demand for petroleum products. In particular there is now a growing use of fuel oil for heating and similar purposes to replace coal, which has also to be imported and the supplies of which have at times been regarded as precarious. This demand in Canada, is still in its early stages, but should grow as the possibilities of oil for heating purposes are understood.

The demand for gasoline also has been increasing, and though gasoline taxes are now being imposed, or will this year be imposed, by practically all the provincial Governments, it is a question if these taxes will, at the present stage, seriously affect the gasoline consumption.

**Demand Is Increasing**

In general an increasing demand for petroleum products, and consequently for crude oil, may be anticipated in Canada, and from the present outlook it is entirely improbable that the near future will see this demand for additional crude oil to any great extent supplied by Canadian fields.

The greater part of the Canadian crude comes from the limited producing areas in southwestern Ontario, where production has been secured for something like 65 years. In nearly eight years no new fields of any importance have been developed. In 1917 the Mosa shallow field, producing from the Corniferous limestone, was developed in Middlesex County and about the same time crude oil was discovered in the Trenton limestone in Dover West Township, Kent County.

Since the Dover Field was opened, there has been considerable deep drilling in southwestern Ontario in the effort to extend the Dover Field and discover new production elsewhere in the Trenton limestone. The Dover Field is still limited to less than a dozen deep wells producing oil, gas or both. Elsewere in Ontario, tests of the Trenton limestone have been negative so far as commercial oil production is concerned. Nevertheless, showings of both oil and gas in the Trenton limestone have been encountered over widely separated areas. On the north, oil showings are found on Manitoulin Island and there is a small commercial gas production in Bruce County, at Hepworth; while in Welland County commercial gas has been found in the Trenton limestone in at least one well. The entire area in Ontario south and west of a line drawn from the eastern extremity of Georgian Bay to Port Hope, on Lake Ontario, is underlain by the Trenton limestone, the formation rising toward the east till it eventually outcrops, while toward the west it also rises in Essex County, with a rather pronounced dip between this point and the eastern outcrops.

**Tests Not Conclusive**

The tests of the Trenton limestone so far drilled cannot be regarded as conclusive. They have been too few to thoroughly test so large an area, and many of the earlier tests were carried only a short distance into the top of the Trenton, whereas the Dover production is secured several hundred feet in the deep lime, while in Romney Township, Kent County, some production was secured at or near the bottom of the Trenton. Most of the Trenton tests in Essex, Kent and Lambton counties, have involved drilling to between 2,800 and 3,800 feet, which fact has contributed to discourage extensive deep drilling.

For the coming season, little deep drilling is definitely forecast. In the Dover Field, the Union Natural Gas Co. will put down a new test close to its present deep production. In Lambton County the High Pressure Oil & Gas Co. has a deep test near Arkona drilled some distance into the Trenton limestone, and this test, though the results so far are negative, has not been definitely abandoned. Near Weston, in York County, Alex Calvert has a deep test down over 4,000 feet with some showings of gas reported. This test, it is claimed, has gone some distance into formations underlying the Trenton. North of Thamesville, in Kent County, E. P. Rowe of Toronto has an unfinished deep test which may this year be continued to the Trenton limestone.

Last year saw considerable drilling in Kent and Essex County adjacent to the Southern Ontario Gas Co. deep producer on the Shanks farm in Romney Township, Kent County. So far as commercial production is concerned, this deep drilling failed to secure results, though slight indications of oil and gas were met in some of the tests. Farther west, the Eagle Oil & Gas Co., drilling near Arner got the top of the Trenton a couple of years ago at an unusually high point; the test, owing to drilling difficulties, was not carried deeper, but in view of the Trenton occurring here at a high point, some operators regard this area as a good prospect for further drilling. Interests connected with the Canadian Dutch Oil Co. have an unfinished deep test in Brant County, near the old Onondaga shallow field. It is possible that the Union Natural Gas Co. and the Southern Ontario Gas Co., which are keenly interested in the development of new gas production, may in 1925 do some additional deep drilling, but their plans have not yet been announced in detail.

**Gas Company Activities**

Both the Union Natural Gas Co. and the Southern Ontario Gas Co. will probably carry on the normal amount of drilling in the older gas fields, the Union Natural Gas Co. probably giving most of its attention to testing of the gas sand in the Tilbury Field, with perhaps a little work in its Dawn Township Field in Lambton County. The Southern Ontario (Dominion) Gas Co. has recently opened a small gas area near Courtland, in Norfolk County, where two tests are now under way, and further work is likely to be done this season.

In shallow drilling, E. P. Rowe and associates and the Ajax Oil & Gas Co. of Toronto are both carrying on work in the vicinity of the old Thamesville shallow pool in the northeast corner of Kent County. Fair oil showings have been reported in the upper lime, but the tests are designed primarily to determine the possibilities of a new sand at between 600 and 640 feet in the lower part of the Onondaga. Drilling is to be carried on this season in both Zone and Camden townships. In Lambton County, Dr. E. B. Blain of Hamilton has been leasing territory near Forest, which will likely be tested this year by shallow drilling.

In the old Tilbury Field, near Fletcher, Stark & Spence of Detroit have drilled a fairly good producing well on the Ball farm, a short distance from producers drilled at the time of the Tilbury boom, nearly 20 years ago. Mac Gardiner and associates of Chatham are arranging for a test on nearby acreage. The Detroit interests will do some additional drilling and the season will likely see a fair test of the remaining possibilities of this portion of the old Tilbury Field.

**New Brunswick Gas Field**

Outside Ontario, there is an important gas field with a small incidental oil production in Albert County, New Brunswick. Here the entire field is controlled by the New Brunswick Gas & Oilfields, Ltd., and while the normal amount of work may be looked for this season it is not a field for competitive enterprise. Experimental work with the distillation of the Albert shale deposits some years ago failed to bring forth any commercial development, and though similar experiments are being conducted with shales in Pictou, Nova Scotia, any commercial development appears to be still in the distant future.

In western Canada, the most promising prospects of new production are those in the province of Alberta and the northwest territories along the Mackenzie River. The Mackenzie oil boom of a few years ago has simmered down to a leisurely development of the potential producing area below Fort Norman, in which Imperial Oil, Ltd. has no competitors. The field is still limited to one producer, the discovery well, with an estimated production around 75 bbls. a day. Last year the Imperial Oil, Ltd. started a second test close to the discovery, which was unfinished when the crew came out for the winter. At least one drilling crew will be sent in again at the opening of navigation, the prospect being that the new test will be finished this season, and perhaps some additional work started. Owing to transportation difficulties, even if oil is discovered, extensive development will be necessary before the production can be marketed on a commercial basis, and the present work seems primarily designed to establish the existence of a possible oil reserve in the Far North. Outside of the Fort Norman area, results in the Far North have so far been purely negative.

**Situation in Alberta**

In Alberta two areas are at the present moment especially interesting. One of these is the Turner Valley-Okotoks Field, southwest of Calgary, the scene of the famous Calgary boom of 1914. In this

(Continued on Page 78)

## VAST STORES OF UNDISCOVERED OIL IN MEXICO, VISITOR THINKS

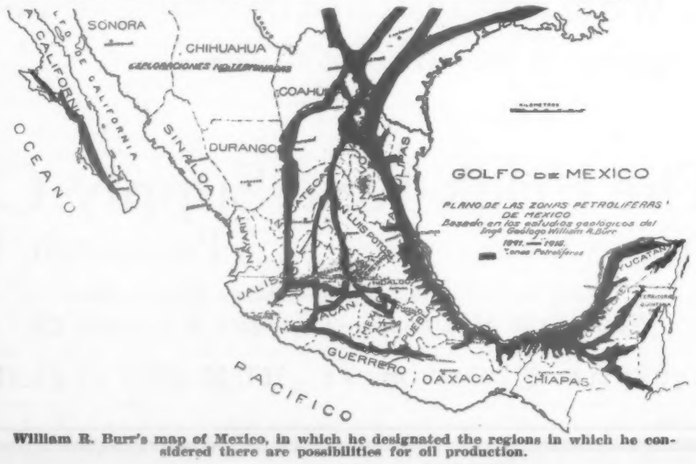
Mexico's oil resources are only in the beginning of their development, in the opinion of E. C. Switzer of Mexico City, who was in Tulsa the past week on a business mission. Mr. Switzer was seen by an Oil and Gas Journal representative in the office of Henry N. Greis, of the Lago Petroleum Co., Burke-Greis Oil Co. and other interests.

Mr. Switzer has resided in Mexico so many years that he has come to call it home. He looks upon our sister republic as a land of boundless possibilities in petroleum, mining and agriculture, and now that it is emerging from its many political muddles and possesses a strong and progressive governmental administration, he expects that within a year Mexico will commence a period of prosperity never before experienced in that country.

President Calles was spoken of in the highest terms by Mr. Switzer. Mr. Calles is patterning his administration after that of President Coolidge, whom he greatly admires. He has surrounded himself with men of his own type, described by Mr. Switzer as patriotic, progressive men of ability and initiative. He has already put into effect reforms that saved the government many millions of pesos in the past year and expects to bring about a saving of 100,000,000 pesos in the next year. He seeks to rehabilitate the credit of his country and to win the confidence of capital so that the untouched resources of his country may be developed.

According to Mr. Switzer any foreign business man who possesses the capital and the will to do right will be given a square deal in Mexico. "I have lived a long time in Mexico," he said, "and in all my years of residence there I never was treated other than honestly and courteously. I consider the Mexicans as

(Continued on Page 70)




William R. Burr's map of Mexico, in which he designated the regions in which he considered there are possibilities for oil production.

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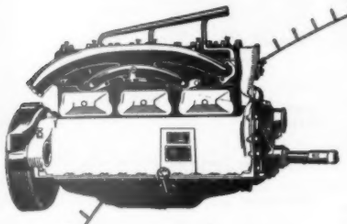

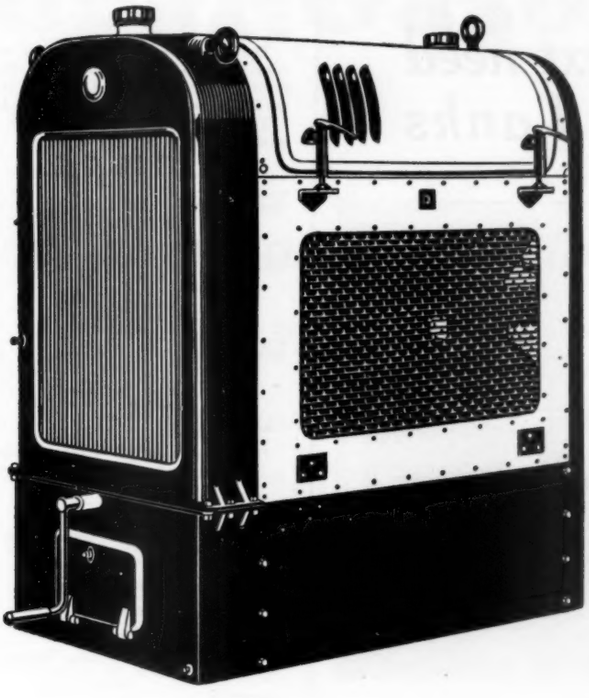

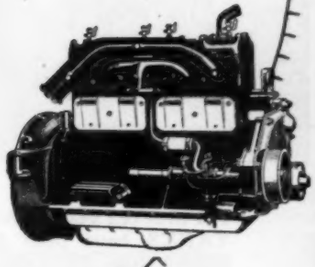

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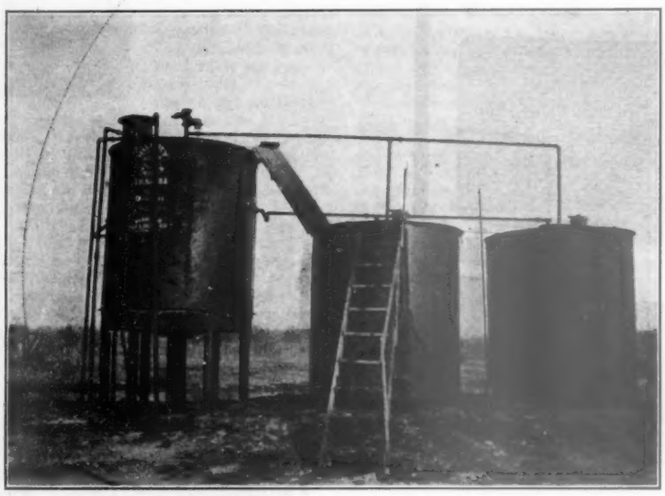

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# GULF PORT SHIPMENTS IN FEBRUARY SHOWED DECREASE OF 1,239,123 BBLS.

HOUSTON, Tex., March 28. — Shipments of refinery products and crude by water from Gulf ports during February fell off 1,768,890 bbls. from the January figures.

The movements of refined aggregated 7,484,103 bbls., a decrease of 1,239,123 bbls. from January. Crude fell off 529,767 bbls.

The export shipments showed an increase of 76,125 bbls. from January. Refined products fell off 810,904 bbls., but crude shipments increased 887,029 bbls.

The following table shows the shipments of each company in detail:

**From Port Arthur**
By The Texas Co.
Refined

| | |
|---|---|
| Coastwise | 1,019,793 |
| Export | 351,818 |
| Total | 1,371,611 |

Crude

| | |
|---|---|
| Coastwise | 835,203 |
| Export | 59,367 |
| Total | 894,570 |

**From Port Arthur**
By Gulf Refining Co.
Refined

| | |
|---|---|
| Coastwise | 1,780,105 |
| Export | 5,786 |
| Total | 1,785,891 |

**From Beaumont**
By Magnolia Petroleum Co.
Refined

| | |
|---|---|
| Coastwise | *819,872 |

*367,851 bbls. manufactured fuel oils.

Crude

| | |
|---|---|
| Coastwise | 75,871 |

**From Sabine Pass**
By The Sun Oil Co.
Crude

| | |
|---|---|
| Coastwise | 320,055 |

**From Port Arthur**
By Atlantic Oil Producing Co.
Crude

| | |
|---|---|
| Coastwise | 349,074 |

**From Smith's Bluff**
By Pure Oil Co.
Refined

| | |
|---|---|
| Coastwise | 72,758 |

Crude

| | |
|---|---|
| Coastwise | 294,778 |

**From Neches Terminal (Orange)**
By Humble Oil & Ref. Co.
Crude

| | |
|---|---|
| Coastwise | 161,956 |

**From Texas City**
By Humble Oil & Ref. Co.
Crude

| | |
|---|---|
| Coastwise | 987,356 |

**From Texas City**
By Vacuum Oil Co.
Crude

| | |
|---|---|
| Coastwise | 232,204 |

**From Texas City**
By Swiftsure Petroleum Co.
Crude

| | |
|---|---|
| Coastwise | 144,478 |

**From Baytown**
By Humble Oil & Ref. Co.
Refined

| | |
|---|---|
| Coastwise | 1,493,954 |

Crude

| | |
|---|---|
| Coastwise | 349,444 |
| Export | 111,794 |
| Total | 461,238 |

**From Houston (Pasadena Docks)**
By United Central Oil Corp.
Crude

| | |
|---|---|
| Coastwise | *218,715 |

*Account Atlantic Refining Co. and Beacon Oil Co.

**From Houston**
By Galena-Signal Oil Co.
Refined

| | |
|---|---|
| Coastwise | 204,000 |
| Export | 60,000 |
| Total | 264,000 |

**From Houston**
By Deepwater Refining Co.
Refined

| | |
|---|---|
| Coastwise | 10,000 |

**From Baton Rouge**
By Standard of Louisiana
Refined

| | |
|---|---|
| Coastwise | 748,045 |
| Export | 709,981 |
| Total | 1,458,026 |

Crude

| | |
|---|---|
| Export | 894,975 |

**From New Orleans**
By Standard of Louisiana
Refined

| | |
|---|---|
| Export | 7,210 |

**From Texas City**
By Marland Oil & Refining Co.
Crude

| | |
|---|---|
| Coastwise | 245,809 |
| Export | 173,040 |
| Total | 418,849 |

**From Houston**
By Sinclair Refining Co.
Refined

| | |
|---|---|
| Coastwise | 147,539 |
| Export | 53,242 |
| Total | 200,781 |

**SUMMARY**
**Vessel Shipments of Refined and Crude From Gulf Ports During February, 1925**

| Company and Port— | Refined | Crude | Total |
|---|---|---|---|
| The Texas Co., Port Arthur | 1,371,611 | 894,570 | 2,266,181 |
| Gulf Refining Co., Port Arthur | 1,785,891 | ..... | 1,785,891 |
| Magnolia Petroleum Co., Beaumont | 819,872 | 75,871 | 895,743 |
| Sun Co., Sabine | ..... | 320,055 | 320,055 |
| Atlantic Oil Producing Co., Port Arthur | ..... | 349,074 | 349,074 |
| Pure Oil Co., Smith's Bluff | 72,758 | 294,778 | 367,536 |
| Humble Oil & Refining Co., Neches Terminal | ..... | 161,956 | 161,956 |
| Humble Oil & Refining Co., Texas City | ..... | 987,356 | 987,356 |
| Vacuum Oil Co., Texas City | ..... | 232,204 | 232,204 |
| Swiftsure Petroleum Co., Texas City | ..... | 144,478 | 144,478 |
| Marland Oil & Refining Co., Texas City | ..... | 418,840 | 418,840 |
| Humble Oil & Refining Co., Baytown | 1,493,954 | 461,238 | 1,955,192 |
| United Central, Houston | ..... | 218,715 | 218,715 |
| Galena-Signal, Houston | 264,000 | ..... | 264,000 |
| Deepwater Refining Co., Houston | 10,000 | ..... | 10,000 |
| Sinclair Refining Co., Houston | 200,781 | ..... | 200,781 |
| Standard of Louisiana, Baton Rouge | 1,458,026 | 894,975 | 2,353,001 |
| Standard of Louisiana, New Orleans | 7,210 | ..... | 7,210 |
| Total February | 7,484,103 | 5,454,110 | 12,938,213 |
| Total January | 8,723,226 | 5,983,877 | 14,707,103 |
| Difference | 1,239,123 | 529,767 | 1,768,890 |

**EXPORTS**

| Company and Port— | Refined | Crude | Total |
|---|---|---|---|
| The Texas Co., Port Arthur | 351,818 | 59,367 | 411,185 |
| Gulf Refining Co., Port Arthur | 5,786 | ..... | 5,786 |
| Humble Oil & Refining Co., Baytown | ..... | 111,794 | 111,794 |
| Galena-Signal, Houston | 60,000 | ..... | 60,000 |
| Standard of Louisiana, Baton Rouge | 709,981 | 894,975 | 1,604,956 |
| Marland Refining Co., Texas City | ..... | 173,040 | 173,040 |
| Sinclair Refining Co., Houston | 53,242 | ..... | 53,242 |
| Total February | 1,180,827 | 1,239,176 | 2,420,003 |
| Total January | 1,991,731 | 352,147 | 2,343,878 |
| Difference | 810,904 | 887,029 | 76,125 |

# BULK OIL HANDLED AT TEXAS CITY, TEXAS, IN FEBRUARY

| | Barrels | Total |
|---|---|---|
| **Inbound:** | | |
| 1 Steamer—Import | 67,183.64 | |
| 1 Steamer—Coastwise | 20,086.23 | |
| 8 Barges—Coastwise | 73,894.09 | 161,163.96 |
| **Outbound:** | | |
| 3 Steamers—Export | 173,040.00 | |
| 20 Steamers—Coastwise | 1,608,913.11 | |
| Bunkers furnished vessels carrying cargo | 64,543.45 | 1,846,496.56 |
| Total 33 Vessels—10 In; 23 Out | | 2,007,660.52 |

**SUMMARY**

| | | |
|---|---|---|
| **Humble:** | | |
| 10 Steamers—Coastwise Out | 986,362.54 | |
| 7 Barges—Coastwise In | 62,432.77 | |
| *Bunker Fuel Oil | 59,563.11 | 1,108,358.42 |
| **Marland:** | | |
| 3 Steamers—Export | 173,040.00 | |
| 4 Steamers—Coastwise Out | 245,809.00 | 418,849.00 |
| **Swiftsure:** | | |
| 3 Steamers—Coastwise Out | 144,477.75 | |
| 1 Steamer—Coastwise In | 20,086.23 | |
| 1 Barge—Coastwise In | 11,461.32 | |
| 1 Steamer—Import | 67,183.64 | |
| *Bunker Fuel Oil | 4,980.34 | 248,189.28 |
| **Vacuum:** | | |
| 3 Steamers—Coastwise Out | 232,263.82 | 232,263.82 |
| Total 33 Vessels | | 2,007,660.52 |

*Bunker Fuel Oil furnished vessels carrying cargo.

# Guaranteed Grades of Natural Gasoline

## *Keep Them at Your Elbow*

**The Official Specifications for Natural Gasoline**

**GRADE "DOUBLE A"**

| | |
|---|---|
| Recovery | Not less than 90% |
| End Point | Not over 375 F. |
| Gravity | 80.0 to 87.9 Be. |

**GRADE "DOUBLE B"**

| | |
|---|---|
| Recovery | Not less than 85% |
| End Point | Not over 375 F. |
| Gravity | 84.0 to 92.0 Be. |

**GRADE "A"**

| | |
|---|---|
| Recovery | Not less than 90% |
| End Point | Not over 375 F. |
| Gravity | 72.0 to 79.9 Be. |

**GRADE "C"**

| | |
|---|---|
| Recovery | Not less than 78% |
| End Point | Not over 375 F. |
| Gravity | 80.0 to 90.0 Be. |

**GRADE "B"**

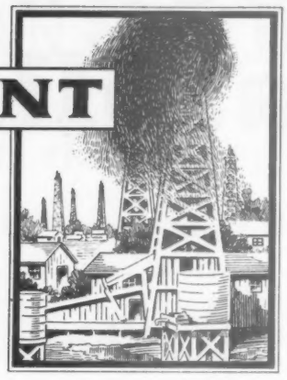
| | |
|---|---|
| Recovery | Not less than 85% |
| End Point | Not over 375 F. |
| Gravity | 76.0 to 83.9 Be. |

**All Grades Are Manufactured by the Chestnut & Smith Corporation**

# CHESTNUT & SMITH CORPORATION

GENERAL OFFICES–CHESTNUT & SMITH BLDG.– TULSA, OKLA.

Use MONARCH
CEMENT
FOR ECONOMICAL CONSTRUCTION



Safeguard the Oil Strata

*MONARCH* is time-tried and proven. Exclusively used by many of the leading producers in cementing oil wells and for all other oil field cement uses.

—And to our knowledge there has never been a failure of MONARCH to enduringly shut off the intrusion of water under all varying conditions.

The use of MONARCH Cement saves time, cost and expensive delays in bringing in production.

MONARCH is not affected by temperatures or the sulphate waters usually found in oil wells.

—And MONARCH Cement is unsurpassed for surface casing cementing and all other cement uses in the field.

Buy DEPENDABLE MONARCH from your dealer, or write us for further information.

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# ALABAMA HAS LOWEST GASOLINE CONSUMPTION; CALIFORNIA LARGEST

There are more persons per registered automobile in Alabama than any other State according to a report compiled by the Western Petroleum Refiners Association. California has the least number of persons per motor vehicles. The report is based on automobile registrations for 1924 and the Government's census for 1920.

According to the report there are 15.55 people for each automobile in Alabama and 2.99 people per automobile in California. The great difference between these two States representing the extremes in automobile ownership is of interest to the oil industry because it also accurately reflects the difference in per capita consumption of gasoline.

The association's report covering all States show how directly economic conditions are reflected in automobile ownership. Not only Alabama but practically all the States of the South have relatively few automobiles compared to population. All of the States which have more than 10 people for each registered automobile in 1924 belong to the South. These States are Alabama with 15.55 people per automobile, Georgia, 14.47 people, Arkansas, 12.96 people, Mississippi, 13.35 people, Tennessee, 11.79 people, South Carolina, 10.79 people, Kentucky, 10.71 people and Louisiana, 10.44 people.

Economic conditions are better in California and the West Coast area generally, there being 4.34 people per registered automobile in Oregon and 4.94 people per automobile in Washington. California has also been aided by the large number of tourists and winter residents, a great majority of whom own automobiles. The influence of climatic conditions is also shown in the fact that Florida has a registered automobile for 5.48 population, the rate being the lowest of any of the States of the South.

For the entire United States the average during 1924 was 6.33 persons per registered motor vehicle. Following is the average figure for previous years: 1923, 7.23 persons; 1922, 8.88 persons; 1921, 10.26 persons; 1920, 11.48 persons; 1919, 13.82 persons; 1918, 16.97 persons; 1917, 20.56 persons; 1916, 28.11 persons; 1915, 39.82 persons; 1914, 55.36 persons; 1913, 77.33 persons and 1912, 94.12 persons.

### Gasoline Output

Texas leads all States in gasoline output according to the association's estimate with a total output during 1924 of 1,724,710,988 gallons or 19.48 per cent of the total production of United States. California is second with a total output of 1,221,525,821 gallons and Oklahoma third with a total output of 1,003,178,888 gallons. Only 13 States produce more gasoline than they consume within their borders. These States are California, Indiana, Kansas, Kentucky, Louisiana, Maryland, Montana, New Jersey, Oklahoma, Pennsylvania, Rhode Island, Texas and Wyoming.

In the following table the association has estimated gasoline consumption, gasoline shipments and the indicated deficit of consumption over shipments by States with the persons per registered motor vehicles.

GASOLINE AND MOTOR VEHICLE STATISTICS FOR YEAR 1924

| | Estimated Consumption of Refined Gasoline Gallons | Estimated Shipments of Gasoline From Refineries Gallons | Indictd.Deficit of Consump. Over Ship'ts From Local Refineries Gallons | Persons per Registered Motor Vehicle Dec. 31 |
|---|---|---|---|---|
| Alabama | 86,933,049 | ..... | 86,933,049 | 15.55 |
| Arizona | 24,361,538 | 1,606,804 | 22,754,734 | 6.81 |
| Arkansas | 60,417,629 | 37,104,214 | 23,313,415 | 12.96 |
| California | 586,968,418 | 1,221,525,821 | †634,557,403 | 2.96 |
| Colorado | 92,597,673 | 7,936,996 | 84,660,677 | 4.69 |
| Connecticut | 95,195,426 | ..... | 95,195,426 | 6.59 |
| Delaware | 16,135,546 | ..... | 16,135,546 | 6.61 |
| District of Columbia | 35,651,143 | ..... | 35,651,143 | 5.30 |
| Florida | 126,035,290 | ..... | 126,035,290 | 5.48 |
| Georgia | 123,502,494 | 16,752,465 | 106,750,029 | 14.47 |
| Idaho | 27,266,573 | ..... | 27,266,573 | 6.96 |
| Illinois | 499,127,740 | 487,273,734 | 11,854,006 | 6.11 |
| Indiana | 247,120,174 | 358,876,094 | †111,755,920 | 4.64 |
| Iowa | 275,789,199 | 6,409,352 | 269,379,847 | 3.99 |
| Kansas | 185,535,050 | 469,773,236 | †284,238,186 | 4.40 |
| Kentucky | 86,607,862 | 91,526,963 | † 4,919,101 | 10.71 |
| Louisiana | 113,072,022 | 507,226,917 | †394,154,895 | 10.44 |
| Maine | 52,158,953 | ..... | 52,158,953 | 6.12 |
| Maryland | 100,514,953 | 164,480,312 | † 63,965,359 | 7.79 |
| Massachusetts | 298,622,621 | 195,370,895 | 103,251,726 | 6.45 |
| Michigan | 385,805,138 | ..... | 385,805,138 | 4.68 |
| Minnesota | 213,463,185 | 6,587,681 | 206,875,504 | 5.40 |
| Mississippi | 61,563,240 | 790,262 | 60,772,978 | 13.35 |
| Missouri | 231,283,600 | 57,653,429 | 173,630,171 | 6.34 |
| Montana | 35,397,949 | 35,487,472 | † 89,523 | 7.91 |
| Nebraska | 115,439,039 | ..... | 115,439,839 | 4.35 |
| Nevada | 7,876,270 | ..... | 7,876,270 | 4.21 |
| New Hampshire | 30,626,489 | ..... | 30,626,489 | 6.23 |
| New Jersey | 223,949,124 | 874,499,318 | †650,550,194 | 6.78 |
| New Mexico | 18,799,108 | ..... | 18,799,108 | 8.94 |
| New York | 627,564,251 | 128,600,692 | 498,963,559 | 7.51 |
| North Carolina | 149,069,562 | ..... | 149,069,562 | 8.95 |
| North Dakota | 50,935,982 | ..... | 50,935,982 | 5.81 |
| Ohio | 552,553,744 | 240,870,165 | 311,683,579 | 5.01 |
| Oklahoma | 146,360,912 | 1,003,178,888 | †856,817,976 | 6.43 |
| Oregon | 86,356,189 | ..... | 86,356,189 | 4.34 |
| Pennsylvania | 454,477,014 | 470,703,610 | † 16,226,596 | 7.49 |
| Rhode Island | 40,266,754 | 55,812,884 | † 15,546,130 | 6.98 |
| South Carolina | 67,563,389 | 37,202,856 | 30,360,533 | 10.79 |
| South Dakota | 63,801,269 | ..... | 63,801,269 | 4.64 |
| Tennessee | 90,913,416 | ..... | 90,913,416 | 11.79 |
| Texas | 370,581,158 | 1,724,710,988 | †1,354,129,830 | 6.01 |
| Utah | 29,047,079 | 21,012,649 | 8,034,430 | 6.11 |
| Vermont | 24,315,662 | ..... | 24,315,662 | 5.76 |
| Virginia | 110,101,975 | 18,610,028 | 91,491,947 | 9.25 |
| West Virginia | 63,138,968 | 50,498,527 | 12,640,441 | 8.28 |
| Wahington | 143,090,956 | ..... | 143,090,956 | 4.94 |
| Wisconsin | 233,290,250 | ..... | 233,290,250 | 5.28 |
| Wyoming | 19,380,060 | 562,993,433 | †543,613,373 | 4.95 |
| United States | 7,780,625,085 | 8,855,076,685 | †1,074,451,600 | 6.33 |

*Denotes decrease in registrations, due to reciprosity between Maryland and District of Columbia, with respect to motor vehicle registrations.
†Denotes excess of shipments from refineries of the State over consumption within the State.

## TANK ROOF WELDING CONTRACTS ANNOUNCED

The Welding Engineering Co. has contracted for the electric welding of fourteen 55,000-bbl. tank roofs for the Shaffer Oil & Refining Co. at Cushing, Okla., and five 80,000-bbl. tank roofs for the Kansas City Structural Steel Co., at Atrece, Tex. The Kansas City Structural Steel Co. is erecting the tanks for the Atlantic Refining Co.

The Welding Engineering Co. has just finished electric welding an 80,000-bbl tank roof for the Humble Oil & Refining Co. at Webster, Tex.

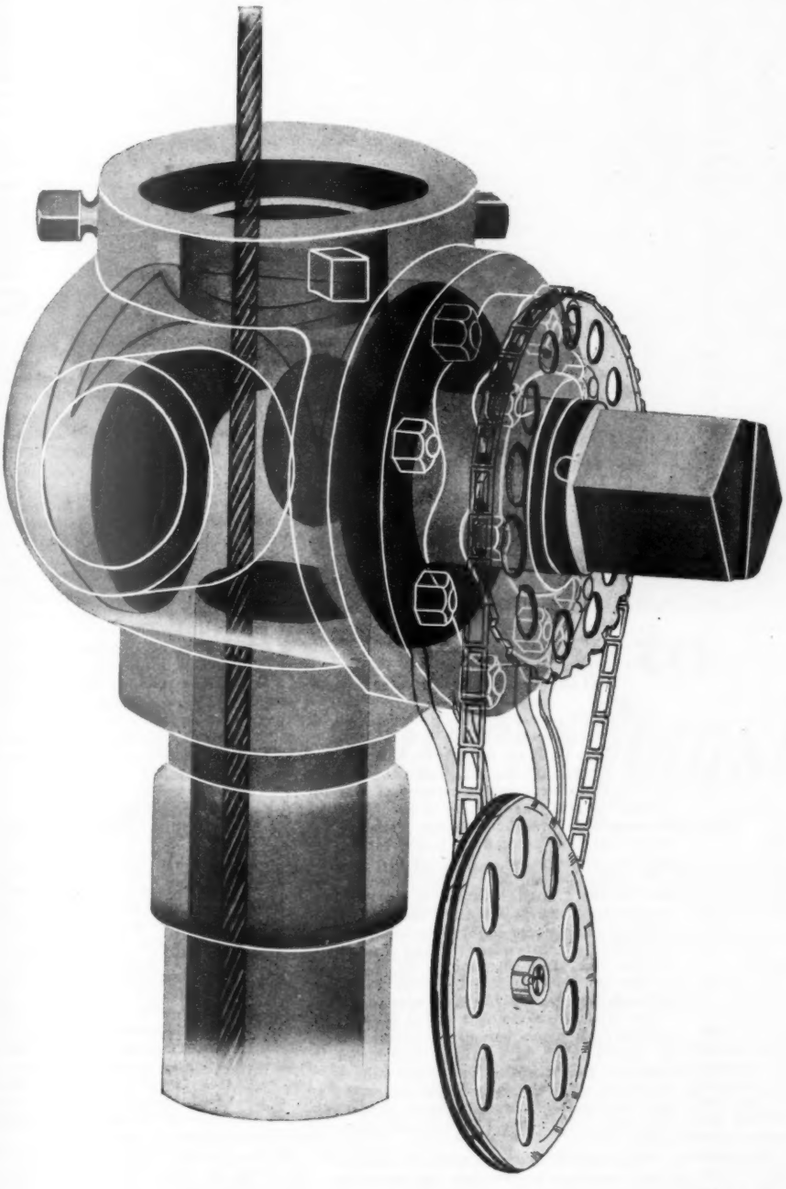

### TIME WELL SPENT

The time spent in writing a description of the good material which you would like to procure at a reasonable price will be well spent if you mail it to The Oil and Gas Journal Classified Wants Department for next week's issue.

The Classified Wants Section will help you get just what you want, as the students of the Classified Section are great in number and control the buying or selling of a large portion of the material used in the oil and gas industry. Let your fellow reader help you. He can if you put your advertisement in the Classified Wants Section.

# *The* Arbon Control Casing Head

## *Can be rotated regardless of pressure*



The Arbon Control Casing Head was produced to control a well of any size or any rock pressure. It is the only control head made in both semi-steel and cast-steel. *The latter guaranteed tested to better than 3,000 lbs. to the square inch.*

The outstanding feature of the Arbon Control Head, and the one which appeals particularly to the producer, is a *floating valve or plug with a double bearing* which eliminates friction and allows the valve to be turned, and the well controlled, regardless of the pressure upon the plug. We have, therefore, a floating valve and a perfect seal. *Two openings* are used in the Arbon Control Head, as this is necessary for all large wells. If only one flow opening is desired a bull plug should be used on the side away from the flow tank.

*The Arbon Casing Head is the only Control Head which can be manipulated away from the well.* A gear is mounted on the main stem which is turned by a roller chain meshing with another gear below the derrick floor. The lower gear is held in place and alignment by a steel casting bolted onto the lower studs which also hold the main flange. To this lower gear is connected a pulley which is grooved to take a cable which runs beneath the floor to any convenient place in alignment and which would be out of the fire zone, providing the well ignited at the casing.

**PAUL ARBON & COMPANY, Tulsa, Oklahoma**

***Founded to Experiment and Improve Upon the Methods of Drilling and Producing Oil***

**PAUL ARBON & COMPANY**

# NATURAL GAS DEVELOPMENTS

## OIL AND GAS SPRAYER IN LOUISIANA COURTS

SHREVEPORT, La., March 28.—A test case of the act of the 1924 Legislature prohibiting the blowing of gas wells making oil with the gas when the value of the gas at 3 cents per 1,000 feet is more than the market value of the oil produced, is before the State Supreme Court, whose decision will be of interest to all oil interests in Louisiana fields. It was taken to the high court, following an opinion by Judge Richardson of the second judicial district which held the act constitutional, but expressed a desire to have the Supreme Court pass upon it.

Judge Richardson dissolved a temporary injunction secured by the conservation department against Hude and Aarnes operators, requiring them to close two wells on their Cox lease in Cotton Valley. Following a closing order issued February 18, a test of the wells was made, which revealed salt water, and Hude and Aarnes filed a suit for damages. This was nonsuited by the court, with a reservation to Hude and Aarens to bring a separate suit against the commissioner of conservation. Pending the Supreme Court's opinion the wells are closed.

The wells were completed several months ago, making much gas and a spray of oil, and were allowed to blow for some time in hopes that production would increase. When this failed to materialize the conservation department ordered them closed and the controversy was taken to the courts. The owners claimed the wells were making commercial oil in excess of the value of the gas. The conservation department claimed they were not, but the court ruled for the owners.

No. 2 Cox, according to the conservation department, gauged 11,500,000 feet of gas and No. 1 was estimated to be making 8,000,000. An accurate gauge on this well could not be taken because it was making water with the oil and gas. Oil production was estimated by the department at 50 bbls. for the two wells. At 3 cents per 1,000 feet the department claims, the value of the gas blown into the air daily was $150 and the value of the oil at the then market price, $1.40 per bbls. was placed at $75. It was estimated that since the wells had been allowed to blow, 2,000,000,000 feet of gas had gone into the air. Sold in Shreveport, had it been piped to this city, the consumers would have paid $700,000 for this amount, paying at the rate of 35 cents per 1,000 feet, it was claimed.

The owners claimed the gas had no commercial value, as there was no way of marketing it at the time, and that therefore they were justified in insisting that the wells be allowed to blow, experience with other sprayers elsewhere in the field being that they developed larger oil production by so doing. The conseration department granted this, but claimed these wells had been given ample opportunity to increase their production by blowing and had failed to do so and, besides wasting valuable gas, were draining the entire field, encouraging water encroachment and forcing other production wells to be put on the beam earlier than would otherwise be necessary.

### LIGHTER GAS THAN HELIUM

Discovery of a gas lighter than helium may result from observations of the Corona of the sun during the recent eclipse, Dr. John A. Miller, professor of astronomy at Swarthmore College, told an audience at Drexel Institute, Philadelphia.

"We now know," Dr. Miller said, "that a gas lighter than helium exists in this metal coronium and we expect later to find it on earth, as most of the gases of the sun have been found."

## HALL PROCESS FOR MAKING GAS BLENDS RICH AND LEAN PRODUCT

The Hall process for making gas is the invention of Elmon L. Hall of Portland, Ore. Mr. Hall was granted a patent on the process August 28, 1923, his application having been filed March 7, 1921. The process is described as follows in the patent:

"This invention relates to gas making; and it consists of a methodical process of making city gas of standard calorific value, from petroleum oils without destroying, as in existing known processes, the valuable tarry hydrocarbons, including the light oils suitable for motor fuel, and of recovering the same, together with other valuable by-products, so as to produce a total yield of products per unit of oil three or four times greater in aggregate commercial and economic sales than by existing methods, wherein separate portions of oil are cracked into gas at different temperatures and under different conditions, blending the gas so produced and separately recovering the various by-products; all as more fully hereinafter set forth and as claimed.

"In the manufacture of gas from oil by heat, the results vary materially with conditions of time and temperature; but, in a general way, at temperatures around 700 degrees Centigrade oils break up fairly smoothly with a maximum production of gas rich in carbon (containing ethylene, ethane, propylene, propane, etc.)

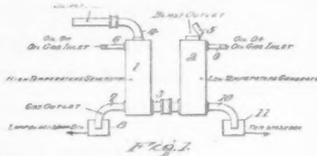


Fig. 1.

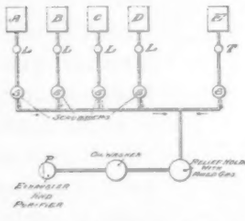


Fig. 2.

and with a minimum production of condensible tarry products. These tarry products, like the gas, are of a paraffin or petroleum character. There is little free hydrogen or methane in the gas. With a prolonged exposure to heat and more quickly as the temperature goes up above 700 degrees Centigrade, these primary products yield secondary products. At about 800 degrees to 850 degrees Centigrade hydrogen is split off from the gas and methane is formed, with production of tarry and oily hydrocarbons of the aromatic or benzine series. In oil gas exposed to very high temperatures, around and above 1,000 degrees Centigrade, the second decompositions are more fargoing, with production of free hydrogen and free carbon (lamp black). Methane, $CH_4$, which is one of the most stable of the hydrocarbons, at about 1,000 degrees Centigrade, is nearly completely (96 per cent) broken up into hydrogen and free carbon. These facts are taken into consideration in the present invention.

**Definite Calorific Value**

"City gas is always required of a definite calorific value; generally somewhere between 500 and 600 B. T. U. per cubic foot. In making city gas from oil it is desirable to obtain a product of this standard richness and at the same time to obtain a good yield of high grade by-products (tar or lamp black), in order to aid in defraying the cost of manufacture. Where tar and aromatic hydrocarbons (benzene, toluene, etc.) are to be produced as by-products, it is desirable that the fixing or heating of the oil gas be at a temperature low enough to give a thin rich tar but high enough to insure absence of petroleum hydrocarbons, since the presence of a small amount of oils of the character of gasoline or kerosene much reduces the value of benzene and toluene. These results can be obtained by a cracking operation finishing around 850 degrees to 900 degrees Centigrade; the particular temperature desirable varying with the time allowed for its action. To some extent, time and temperature are reciprocal factors. On the other hand, in making lamp black of good commercial quality, a considerably higher range of temperature, around and above 1,000 degrees Centigrade, is desirable for fixing. When lamp black is made, very little tar is produced and this is a pitchy material of little merchantable value. In making city gas at the optimum temperature for the production of high grade tar, the gas is rather richer than is desirable for standard gas; that is, it runs more than 600 B. T. U. per cubic foot. On the other hand, at the optimum temperature for making lamp black of good commercial grade, the gas produced is materially below the standard; that is, it

(Continued on Page 82)

## L. L. GRAHAM RETIRES FROM GAS COMPANIES

OIL CITY, Pa., March 28.—Changes in the official positions of the United Natural Gas Co. have been made through the retirement of Lyman L. Graham who was vice president and secretary of the United Natural Gas Co. and of the Mars Co. and vice president of the Pennsylvania Gas Co., as well as a director in each of the firms.

F. Sartorius has been named as secretary of the United Natural, C. F. Huff is named as vice president of the United Natural and George E. Walker has been appointed vice president of the United Natural and Mars companies. The name of the new vice president of the Pennsylvania Gas Co. has not been announced.

Mr. Graham, a resident of Oil City, is retired from active service on account of ill health after 36 years of association with the company. A testimonial dinner in honor of Mr. Graham was given at the Venango Club by the United Natural Gas Co. and Mars Co. business associates.

Raymond Cross, president of the company, acted as toastmaster and gave the opening address. H. R. Sheldon, assistant treasurer, presented Mr. Graham with an engraved gold watch bearing the date of his early entry into service, December 18, 1888, his name and date of his retirement. The guest of honor responded and in his talk advised the young men to hold to the safest and best business trails and indicated that he was much moved by the expressions of affection he had received from his associates.

C. E. Cosolowsky of Pittsburgh, H. H. McConnell and B. H. Donovan of Warren were guests from a distance. Letters were read from W. J. Judge of New York City, Thomas R. Weymouth of Buffalo and John B. Corrin of Pittsburgh, former business associates of Mr. Graham, who were unable to be present.

J. V. Frampton gave a toast to the guest of honor and also acted as judge during the mock trial that followed the dinner.

## COLUMBIAN CARBON CO. OPERATIONS IN 1924

The Columbian Carbon Co. is reported producing about 40,000 gallons daily of natural gas gasoline. In 1924 Columbian produced 15,000,000 gallons. It produces from its properties, in various States, in excess of 100,000,000 feet of natural gas a day, and purchases about 50,000,000 feet a day. Consumption in Alexandria, La., which the company supplies through its 100-mile gas line from the Monroe Gas Field, doubled between January and December, 1924.

The company is arranging to sell to the Hope Natural Gas Co. from 4,000,000 to 5,000,000 feet of gas a day from its properties in Kanawha and Rome Counties, West Virginia. The Hope Co. is building a 20-inch gas line at a cost of $6,000,000 to tap the West Virginia gas fields, where Columbian has substantial acreage, of which about 6,000 acres are proven, all accessible to the Hope Natural Gas Line.

The position of the carbon black industry has been helped by the merger of a number of independent manufacturers in the Monroe-La., field, and price of carbon black, which was depressed for the past two years, shows signs of stiffening. Columbian Carbon, the largest in the Monroe Field, was not included in the consolidation.

The Columbian Carbon Co. reports sales of $6,489,588 in 1924, against $8,596,718 in 1923. After meeting expenses and allowing for depreciation and depletion reserves, the company reported operating profit of $2,478,081, against $3,896,336 the year before. After crediting other income and allowing for taxes and profit of $2,167,417, against $3,386,253 in 1923. The net profit for 1924 equaled $5.38 a share, earned on 402,131 shares of no par value outstanding, against $8.42 a share in 1923.

After paying dividends a surplus of $513,430 was reported, against one of $1,777,482 in 1923.

## MAY REVISE UPWARD MONROE FIELD'S LIFE

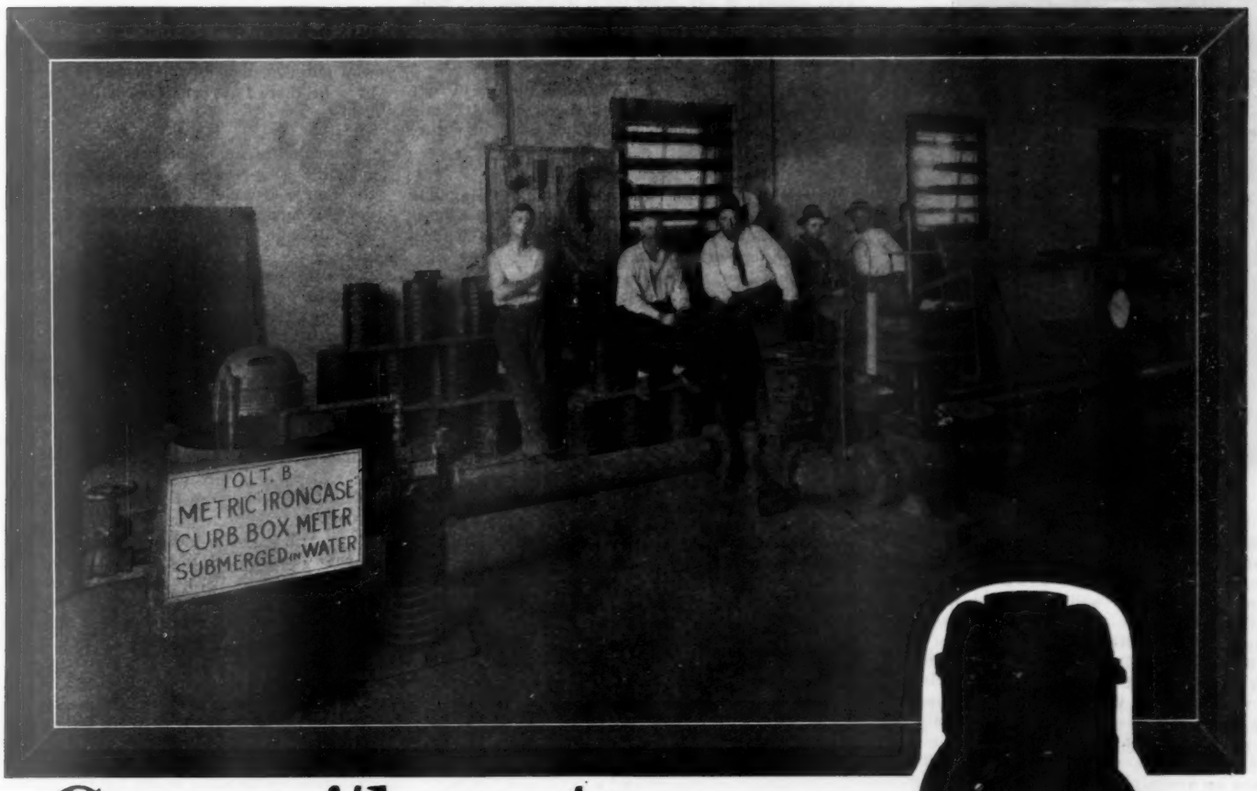
SHREVEPORT, La., March 28.—There was a reduction of approximately 400,000,000 feet in the amount of gas used in the manufacture of carbon black in the Monroe Gas Field during the first week of March compared with the last week in February, the State Department of Conservation announced. The decrease was due to the recent order issued by the department reducing the maximum consumption allowed carbon makers 35 per cent which became effective March 1. The order was issued as a means of lengthening the probable productive life of the field and because of sharp declines in pressure.

Meter reports from the field for the last week in February showed that 3,046,951,000 feet of gas was used by the carbon black manufacturers, while the meter report for the first week of March showed that only 2,685,657,000 was utilized for this purpose.

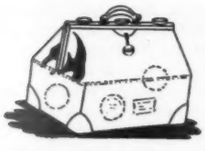
"This decrease of exactly 381,294,000 feet of gas for the first six days of March bears out the contention of the department that the life of the field will be prolonged." W. J. Everett, conservation commissioner said "for reports from H. W. Bell, supervisor of the mineral division of the department, are to the effect that the pressure has appreciably increased in almost every part of the field."

The commissioner added that he believes the beneficial effect of the 35 per cent reduction will become even more apparent within the next few months and that in all probability an upward revision of the probable life of the field will have to be made.

# METRIC IRONCASE METERS




## Come with us to *Alexandria, Louisiana*



This Southern city of fine homes, noted for its own particular brand of Southern Hospitality, is also a live, forward moving city where the spirit of Civic improvement is strongly manifested in its municipal activities.

Alexandria is justly proud of her gas system, which is second to no other city of her size in the country.

When considering adoption of curb box meters as standard installation, some doubt was entertained by W. H. Sylvester, City Engineer, (since deceased) as to whether a gas meter could be found which would successfully operate *under the water line.* METRIC Ironcase Curb Box Meters solved the problem. During tests made before actual installation took place, METRIC Ironcase METERS were kept constantly submerged in water and convinced City authorities that they were the Meters for the job. *Later 1,700 METRIC Ironcase METERS were installed, and are today rendering excellent service to the entire City of Alexandria.*

Our 10 Lt B Ironcase Meter, designed to meet the widest range of requirements for low pressure service with manufactured or natural gas. It possesses all the latest and most improved features of gas meter construction and in addition offers a valuable patented feature in its adjustable tangent. If the meter operates fast or slow, or if it inaccurately registers full or check openings, corrections are easily made by adjusting the tangent. *Can be furnished with or without curb box top.*

WESTCOTT & GREIS

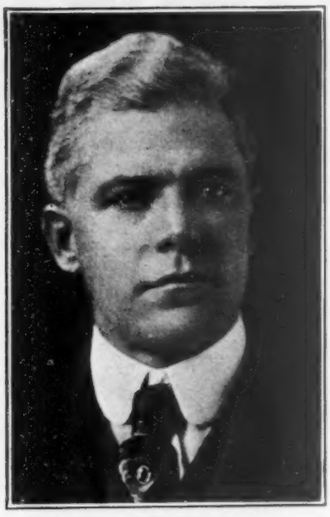
*Sales Service*

Dallas TULSA Los Angeles

General Offices and Plant: Erie, Pa., U. S. A.

# METRIC METAL WORKS

# MEN KNOWN IN OILDOM



**Charles L. McMahon**

Trained from boyhood in the oil business, Charles L. McMahon, one of the best known producers of Okmulgee, Okla., is an example of what may be accomplished by persistent and intelligent effort in the Mid-Continent fields. Mr. McMahon was born and brought up in Bradford, Pa., and went to work for the South Penn Oil Company as soon as his education was finished. From the Pennsylvania fields he went into the West Virginia fields and secured his first production in West Virginia in 1900. The lure of the new fields being opened in the Mid-Continent brought him to Bartlesville in 1905 and he has been an active operator in Kansas and Oklahoma since that date. In 1911 Mr. McMahon moved from Bartlesville to Tulsa and moved to Okmulgee in 1913. In the twelve years in which he has lived in Okmulgee, Mr. McMahon has been an active oil operator in the Okmulgee district and is now one of the largest producers with headquarters at Okmulgee. He operates as an individual, but has cooperated with many other Okmulgee oil men in the development of valuable properties in eastern Oklahoma. At the present time he is the owner of production and leases in the Bristow, Osage and Okmulgee districts of Oklahoma and in Kansas and California. Mr. McMahon is the president of the Union National Bank of Okmulgee and vice president of the Okmulgee District Oil and Gas Association, which he helped to organize in 1921. He is married and has three sons.

# PERSONAL PARAGRAPHS

John L. O'Connell, a pioneer oil producer of Warren, Pa., is looking over the fields of southern Texas and Louisiana.

* * *

Frank Haskell, president of the Tidal Oil Company, with headquarters in New York, has been in Tulsa the past week with his family.

* * *

H. D. Curtis, general manager of the Empire State Oil Company, with offices in Thermopolis, Wyo., was a recent business visitor in Casper, Wyo.

* * *

E. K. Soper, with the Sinclair Exploration Company, who has been abroad for the past eight months on business, has returned to New York.

* * *

Miss Gladys Kerr, for years with the Emlenton Refining Company, at Emlenton, Pa., was recently married to Frank P. Taylor of that city.

* * *

Charles M. Betz, of St. Charles, Ill., who has oil interests in the Muskogee, Okla., district has returned to his home after a short visit in Muskogee.

J. T. Arnold of Bradford, Pa., who operates in the Bradford and Tionesta fields in Pennsylvania is on a business trip which will include New York and Philadelphia.

* * *

J. T. Miller, superintendent of the Burkburnett, Tex., refinery of the Noble Oil & Gas Company, spent several days last week at the Tulsa headquarters of the company.

* * *

George Lowry, Muskogee, Okla., oil man is in New Mexico. He will visit the oil fields of that State with the intent of leasing blocks of land for future drilling purposes.

* * *

Lawrence H. Porter, who has served the Magnolia Petroleum Company in Texas, Oklahoma and Kansas has been transferred to Tampico, Mexico, as head of its accounting department.

* * *

John R. Bunn has been advanced to engineer-driller of the United States Bureau of Mines with hadquarters in Muskogee, Okla., succeeding C. O. Rison, whose assistant he was.

* * *

Sam W. Nau and J. W. Spencer, of the Wynana Oil Company, which has holdings in the Little Lost Soldier and Mahoney Dome areas in Wyoming were visitors in Rawlins, Wyo., recently.

* * *

D. H. Greenwood, of Los Angeles, Cal., left last week for a tour of the Mid-Continent fields. He will visit Houston, Beaumont, Fort Worth, Dallas and Tulsa and will then go to St. Louis.

* * *

George L. Moorman, manager of the Bignall & Keeler Machine Works of the N. O. Nelson Manufacturing Co., Edwardsville, Ill., is making a trip through the Mid-Continent on business.

* * *

C. E. Seidel, who was California statistician for the United States Bureau of Mines, recently resigned the position and returned to Washington, D. C., to be near his parents, who are advanced in years.

* * *

Lawrence H. Porter has been made head of the Magnolia Petroleum Company's accounting department at Tampico, Mexico, after long service with the company in Texas, Oklahoma and Kansas.

* * *

E. B. Coolidge of Lewistown, Mont., known among his friends as Hardrock Coolidge, was a Casper, Wyo., visitor recently. The Hardrock Oil Company operates in the Salt Creek Field and has production there.

* * *

Jack Herbert of the Herbert Oil Company of Fort Worth, Tex., which is interested in the Braman Field in Kay County, Oklahoma, visited that field last week and called upon Tulsa friends on his return.

* * *

W. A. Bolstrom has resigned as manager of the land department of the United Central Oil Company, with headquarters in Houston, Tex. The United Central Oil Company was formerly the White Oil Corporation.

* * *

Harry W. Bishop, Jr., general manager of sales of the Harrisburg Pipe & Pipe Bending Company, of Harrisburg, Pa., is making a tour of the Rocky Mountain and Pacific Coast territory in the interests of his firm.

* * *

D. J. Moran, vice president of The Texas Company, in charge of production, has returned to Houston, Tex., from an inspection trip of the Central American holdings of the company. He had been absent since January.

* * *

Earl C. Emery of the Emery producing and refining interests, Bradford, Pa., together with his wife and Mrs. Lewis Emery, Jr., are in Buenos Aires, Argentine. They will sail for home in April, landing in New York about April 29.

* * *

R. W. Young and C. H. Doolin, sales engineers of the R. D. Nuttall Company of Pittsburgh, manufacturers of cut gears, trolleys and couplings, are visiting different sections of the Mid-Continent territory in the interests of their concern.

F. W. Fraley, head of the southern sales division of the Sinclair interests, with headquarters in Houston, Tex., has been transferred to New Orleans. He has been with the Sinclair Corporation since 1917, previous to that was with the Pierce Fordyce Company.

* * *

John Fitzgerald, Bartlesville, Okla., oil producer is in Bradford, Pa., his former home. He was called there by the illness of his sister, Mrs. Arthur Bauer, who subsequently died. Deceased is survived also by a brother, Dan, who has drilled for oil in many fields.

* * *

Forest E. Gilmore has returned to Tulsa after spending some time in the California oil fields in the course of which he organized the Forest E. Gilmore Company in Los Angeles, Cal. Mr. Gilmore specializes in casinghead gasoline plant construction.

* * *

W. P. Gage, president of the Pure Oil Pipe Line Company, at Dallas, Tex., was a recent visitor at the southern end of the pipe line, inspecting terminals at Smith's Bluff, on the Neches River. The company has looped the 8-inch line from Mexia to Smith's Bluff.

* * *

H. J. Vance, formerly with Richards Oil Company of Los Angeles, Cal., has joined the Bureau of Mines forces and has moved to Casper, Wyo., where he will be associate petroleum engineer, succeeding W. A. Williams, who has been transferred to Oklahoma.

* * *

Fred Baldwin, formerly in charge of lubricants for Anderson & Gustafson, and who also has been with R. S. Jackson & Company, extensive marketers of lubricants in Chicago, has been added to the staff of the Refiners Petroleum Company, at its Chicago headquarters.

* * *

O. V. Borden, of Tulsa, Okla., secretary of the Purchasing Agents Association, and Mrs. Borden, visited their summer camp at Noel, Mo., last week and while there Mr. Borden planted one-half acre in watermelons to make ready for the seasonal craving of association members.

* * *

Mr. and Mrs. Glenn M. Leidecker, who were recently married, have returned to Caspr, Wyo., from thir wedding trip, which included New York and several intermediate points. Mr. Leidecker is manager of the Leidecker Tool Company in Casper.

* * *

Miss Bessie Blankenship has been placed in charge of the Tulsa offices of Hughes & Company, marketers of fuel oil, gas oil and distillates. Miss Blankenship was formerly with the Acme Petroleum Company and the Sinclair Refining Company and is well and favorably known to the trade.

* * *

E. T. Williams, formerly president of the Williams Oil Company, operating in the Wyoming fields, but now a Californian, was recently a Casper visitor. Mr. Williams sold most of his holdings in the Williams Oil Company and is largely interested in the Columbine Oil Company, of which he is manager.

* * *

Harry Greaves, salesmanager for The Texas Company at Okmulgee, Okla., left Friday for Houston to assist The Texas Company entomologists in the testing of the new boll weevil eradicator, a liquid by-product of petroleum. Mr. Greaves was formerly with the Mississippi and Arkansas bureaus of agriculture.

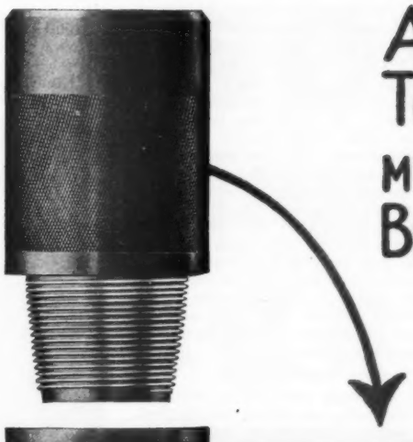
* * *

On the waters of the Pacific bound for an Oriental port are A. C. McLaughlin, president and general manager of the Associated Oil Company; Mrs. McLaughlin and their daughter and W. H. Whittier and daughter. During Mr. McLaughlin's absence on the trip F. B. Henderson, assistant general manager, will have charge of the company's affairs.

* * *

Thomas J. Flannigan, president, and M. J. Flannigan, vice president and general manager of the Gaso Pump & Burner Manufacturing Company, of Tulsa, Okla., were in the Wyoming fields recently. The Messrs. Flannigan are not related by blood ties, but no two brothers were ever more harmonious. They head a prosperous concern and have a high standing in the oil industry.

# Hughes Tool Co.



AN INSTITUTION DEVOTED TO THE SCIENTIFIC DEVELOPMENT AND MANUFACTURE OF BETTER OIL WELL DRILLING TOOLS

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HOUSTON. TEXAS
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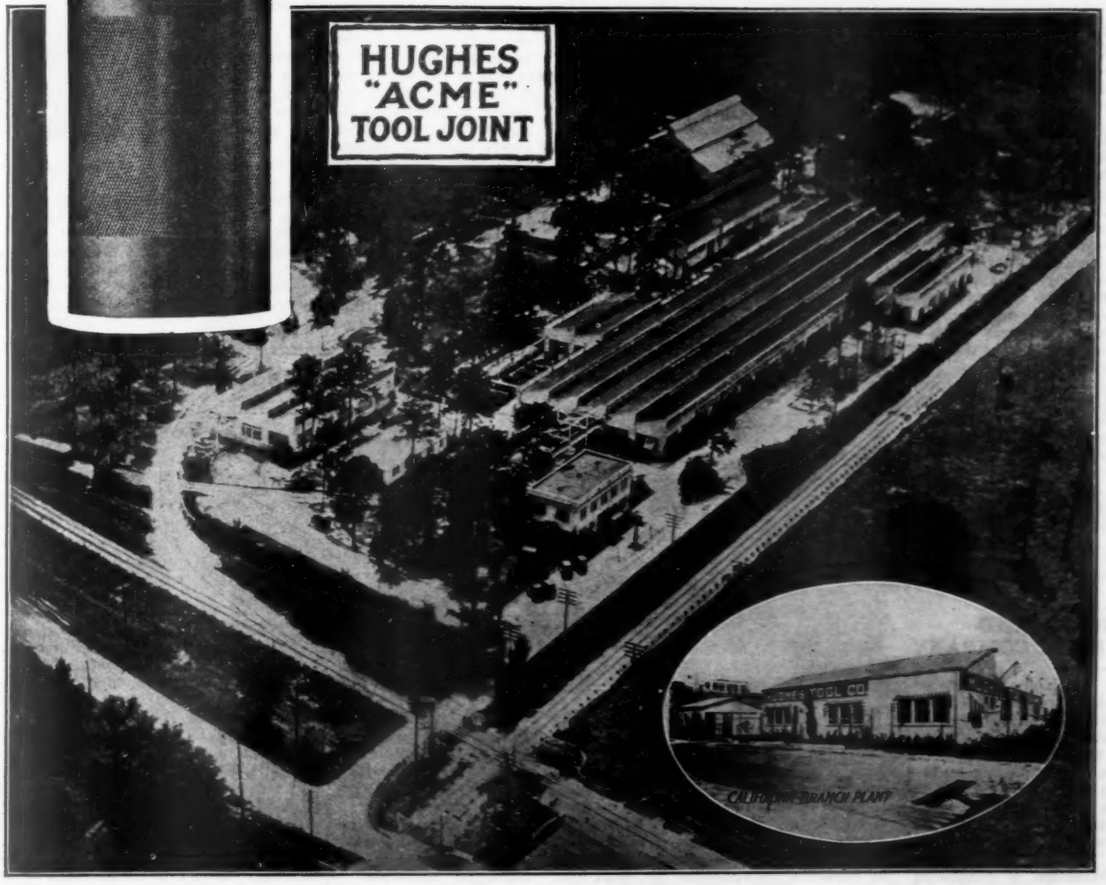


# EQUIPMENT AND SUPPLIES

## ECONOMY OF GAS ENGINE FOR OIL FIELD USE

The economy of gas engines for oil field use is cited in a recent experience on the Clark lease, Santa Fe Springs, Cal. On this lease the Elliott Consolidated well was put on the beam on April 28, 1924. Between that date and June 18, just 51 days, the well had to be pulled five times on account of parted rods and worn cups.

On June 11, a "Western" Oil Field Engine, 40 horse power size, was installed in the rig, and ran continuously, without stopping until November 19, a period of 154 days. During this period there was continuous production with no trouble experienced from parted rods nor worn cups, no pulling jobs or shutdowns. From an average production, during the early part of June, of 224.5 bbls. per day, the well was steadily increased until November, when the average was 300 bbls. per day.

On November 19, 1924, the rods and tubing were pulled and a flow device installed by P. Jones of the engineering department of the Elliott Consolidated. The production was increased to between 640 and 650 bbls. per day and operated continuously from November 20, 1924, until February 10, 1925. The compressor used in connection with the Jones flow device required approximately 35 horse power, and this load was carried continuously by the 40 horse power "Western" engine, in addition to the regular duty, with no apparent effort or trouble resulting.

## FORGED STEEL PIPE FLANGES DESCRIBED

A new catalogue of forged steel pipe flanges has just been issued by the American Spiral Pipe Works, Chicago. The subject has been covered in an exhaustive way but with convenience of arrangement. There is no extraneous matter, yet nothing of practical value has been omitted.

It is a handbook of valuable information for engineers, designers and operators of power systems, oil cracking stills and high pressure pumping lines. Formulas and data tables of vital information are so placed as to permit of quick and easy reference. It is among the first complete publications to embody the new American Engineering Standards of 400, 600 and 900 pounds W. S. P. There are also complete data covering existing standards. It is profusely illustrated with full size cross sections, which, with tables and some halftone illustrations, intelligently convey the best modern practice in the field of increasing pressures and superheat. There is also an interesting section on corrugated steel furnaces.

Copies will be sent free on requests made to the American Spiral Pipe Works, Chicago.

## PIPE LAYING RECORD BY THE HOPE COMPANY

Two years ago the Hope Engineering & Supply Co. laid 70 miles of 12-inch line from the Three Rivers Field to San Antonio, Tex., through typical jack oak and mesquite. In the course of that work it established a record by putting in 14,800 feet of 12-inch line in one day using a gang of Mexicans.

At the present time the Hope company, with the same superintendent, R. B. Lloyd of Mount Vernon, and the same foreman, James Manaugh, is completing a 38-mile extension of 10-inch line to the San Particio Field. One crew recently established another record by laying 19,000 feet of line in one day, or a total of 313 tons of pipe laid, conencted with Dresser couplings and lowered into the ditch. This record figure reduced to common terms means that 1,000 joints of 10-inch pipe were laid in nine hours, or, on the average, a joint every 32 seconds.

## BUYING OF OIL COUNTRY GOODS STEADY; PIPE SALES EQUAL PRODUCTION

By B. E. Luty

PITTSBURGH, March 30.—Buying of merchant pipe and oil country tubular goods has shown no particular change in the past week. There was a little falling off two or three weeks ago, according to the testimony of some mills, but the decrease did not amount to much, being noticeable chiefly because it represented an interruption to the pretty steady gains that had been recorded previously since the first of the year, and which were presumably of seasonal character.

Sales of pipe mills now are substantially equal to their production so that they can run very along nicely if conditions remain as at present. Some of the mills have considerable backlog business, by large operating companies having made arrangements for several months. The general buying however, is not forward, the buyers expecting orders to be shipped as soon as possible, this being the case with oil country jobbers and with jobbers or merchant pipe all over the country. The pipe mills appear to be operating in the neighborhood of 90 per cent or at approximately the same rate as for a couple months past. Mill prices continue to be held strictly, on the basis long maintained, and there is no prospect or likelihood visible of there being any change in either direction.

### Finished Steel Market

In steel products generally there has been a further decrease in buying activity in the past week and on the whole the finished steel markets are rather dull. Even the Chicago district mills, which for a time were having better sales than mills to the east, are now reporting decreased bookings, the incoming business not being altogether equal to the shipments.

The decrease in steel buying does not mean that the trade has taken a turn for the worse. All along it has been certain there would be a decrease, for buying had run far above normal and far above the natural rate of consumption. The steel market has slowed down later, and more gently than was expected in many quarters. Just at the present time the majority of buyers are well covered by previous commitments, this being conspicuously so in bars, shapes and plates. Some buyers have contracts definitely made for second quarter, others have considerable tonnages due them on first quarter contracts, which were too large to be worked out in three months.

Prices on the heavy rolled products, bars, shapes and plates, have softened a trifle farther. So far as can be learned, minimum prices lately quoted have not been transgressed, but the higher price of 2.20 cents on small and less desirable orders, seems to have disappeared practically altogether, and the figure may as well be dropped. Thus bars and shapes become quotable at 2.10 cents flat and plates at 2.00 cents to 2.10 cents. Even single carloads of bars, with mixed specifications, are going at 2.10 cents. One mill relates quoting 2.20 cents on such a lot and being informed that four other mills had quoted 2.10 cents.

### Open Market Buying

Prices on sheets have got so poor that many contracts are being disregarded, buyers finding they can do better in the open market on fresh purchases than in specifying against contracts. However, the decline in sheets seems to have come to an end in the past few days, with a chance of the market becoming steady at levels now ruling, 2.70 cents on blue annealed, 3.40 cents to 3.50 cents on black sheets, 3.50 to 3.60 cents on galvanized sheets and 4.40 cents to 4.50 cents on automobile sheets. The last named are at their lowest level since the middle of 1922, while the others are almost down to the minimums reached in the late months of last year.

Steel consumption is proceeding at a high rate and has probably increased somewhat in the past month or two as certain lines are getting into their season. Production is estimated in one well-informed quarter to have run in the past two months at about 80 per cent of the consumption, indicating that buyers have been replenishing stocks and will take less steel henceforth, merely keeping even with their consumption.

Pig iron is dull and unchanged.

## NEW FACTORY OF NYE TOOL AND MACHINE WORKS

When the Nye Tool & Machine Works moved into its new factory at Chicago, the latter part of March, Harry G. Nye accomplished something unique in the American industry.

While acting in the capacity of western sales manager for C. Rogers & Brother, silversmiths, Mr. Nye conceived the idea of a novel feature for a pipe die, which he worked at as a sideline for about four years until the business grew to such proportion he had to devote his entire time to it. From this humble start in 1907 Mr. Nye has built up this business until today it represents a property worth half a million dollars, of which Harry G. Nye is sole owner.

The specialties which the Nye Tool & Machine Works will manufacture in its new plant, at 4120-30 Fullerton Avenue, Chicago, include such well known specialties as Nye cutter wheels, die stocks, solid and adjustable dies, self-locking pipe vices, vice stands with pipe bender, chain pipe vices, Toledo type stocks and kindred devices.

With 40 per cent greater manufacturing facilities in the new plant, the Nye Tool & Machine Works will start manufacturing additional specialties, upon which it has been spending considerable time during the past few years. All of the Nye specialties find their way into the oil country through the various supply companies who have stocked this line for a good many years and, with the increased and improved manufacturing facilities made available by this new plant, Mr. Nye looks for a further expansion of his business in the oil industry.

## NAMED AS SALESMAN IN ST. LOUIS DISTRICT

Chain Belt Co., Milwaukee, manufacturers of Rex chain, conveying equipment and concrete mixers, announce the appointment of John M. Smallshaw as salesman in the St. Louis territory to succeed T. F. Scannell. Mr. Smallshaw will handle the company's chain and engineering line and will make his headquarters at 1117 Boatmen's Bank Building, St. Louis, Mo.

John M. Smallshaw

Mr. Smallshaw is a graduate as a mechanical engineer of the Purdue University. He was formerly associated with the Dixie Portland Cement Co., and later with the Wolverine Portland Cement Co. More recently he has been on the engineering staff of the Chain Belt Co. and has also been connected with the company's sales organization at Milwaukee. Chain Belt Co. manufactures a complete line of elevating, conveying and power transmission machinery under the trade name "Rex."

## JUNIOR EXECUTORS IN PROBLEM PROGRAM

A Junior Executive Board to discuss various organization problems and production methods has been formed by the employes of the Axelson Machine Co. in Los Angeles and meetings are now held on the second and last Mondays of each month. There are now 24 junior executives in the Axelson organization and a series of interesting programs have been arranged under the chairmanship of William Laury, who is in charge of the metallurgical department. Among the subjects to be discussed this spring are: Production, welfare, social activities, purchasing, managing, accounting, sales, distribution, better methods of manufacturing, detail and research. Speakers from outside organizations are being brought to the meetings to give the outsiders' view point.

These junior executive meetings are entirely in charge of the employes and the Senior Executive Board takes no part in the meetings other than to attend and offer suggestions, as it is the policy of the directors of the Axelson organization to give every opportunity to employes to use their own initiative in the handling of the production affairs.

# Try Using 2 of These WILSON Tubing Tongs!

**Lightweight QUICK— A Handy Helper**

## One for Action —One for back-up

This new Wilson product is making friends in every oil field. It grips the tubing almost automatically and holds tightly. It's much faster to work with than any other tongs—and it can be used for many purposes besides tubing service. You can use one for backing up—and one for action—in making connections of pipe and pump fittings on the floor. It's a general utility tong for miscellaneous light service.

Leading supply houses carry Wilson Tubing Tongs and other Wilson Products in stock for immediate delivery.

*Ask for Literature*

## Wilson & Willard Mfg. Co.

MANUFACTURERS

It's a Wilson

*Distributed By* WILSON OIL TOOLS CORPORATION

SALES OFFICES
Tulsa, Oklahoma
409 Atlas Life Bldg.

Factory and Distributors Office
2301 E. Vernon Ave.
*Los Angeles, California, U.S.A.*

SALES OFFICES
Fort Worth, Texas,
704 Van Wagoner Bldg.
New York
141 Broadway, Room 1310

# SAFETY, ECONOMY and SIMPLICITY

## THE REID CAPPS' PATENT DRY GASOMETER

**SAFE,** because it has no outside connections except the inlet and outlet. Any leakage of gas around the regulating cock is confined within the case and automatically acts to reduce the amount of gas admitted, greatly reducing danger from fire.

**ECONOMICAL** because leaking gas is confined within the case. Users report a considerable saving in the amount of gas used.

**SIMPLE** because the only working parts are a rubber diaphragm, which, rising or falling as the supply of gas varies, operates, by means of a rack and pinion arrangement, the gas cock which regulates the amount of gas admitted. There are no outside levers and links. The illustration above shows the clean design of this gasometer.

*Our bulletin No. 27 gives a full description of this gasometer. Ask for it.*

**JOSEPH REID GAS ENGINE COMPANY**

**OIL CITY, PENNSYLVANIA, U. S. A.**

**BRANCHES AND AGENCIES—Marietta, Ohio; Logan, Ohio; Newark, Ohio; Ft. Recovery, Ohio; Shreveport, La.; Charleston, W. Va.; R. B. Moore, Bolivar, N. Y.; Bradford Supply Co., Robinson, Ill.; Frick & Lindsay Co., Bradford, Pa., and Kentucky Distributors; S. R. Shoup, 708 Pacific Electric Bldg., Los Angeles, Cal.; Frick-Reid Supply Company and Branches, Distributors for Oklahoma, Kansas, Texas, Arkansas and Wyoming.**

**BRANCH SHOP—TULSA, OKLAHOMA**


# Mexican Shipments For February Show 1,000,000-Bbl. Drop

TAMPICO, Mex., March 28. — Shipments of petroleum from Mexican ports of primary clearance during the month of February totaled 9,984,037 bbls., a sharp decrease from the preceding month, (1,124,856 bbls.), and a decrease from the movement in the same month in 1924 of, 1,813,439 bbls. The only feature of the movement under discussion was the heavy shipments of Huasteca Petroleum Co., (Mexican Petroleum), which, as usual took the lead, and of Transcontinental Petroleum Co., (S. O. of N. J.), the two companies exporting say 60 per centum of the entire movement during the month. Huasteca and Transcontinental, in other words, dispatched 6,280,050 bbls.

By ports the February movement was as follows: Tampico, 9,682,812 bbls.; Port Lobos, 100,121; Tuxpam, 201,104 bbls. The heavier oils of the northern fields that were directly indicated in the movement totaled 5,804,008 bbls.

In detail the movement follows:

**FROM TAMPICO**

**By Huasteca Petroleum Co.,**
**(Mexican Petroleum)**

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 1 | Ss. | Elisha Walker, Rio J. & Santos | | *65,729 |
| 1 | Ss. | F. R. Kellogg, Providence | | *58,189 |
| 2 | Ss. | Inveravon, Panama | | *51,412 |
| 2 | Ss. | G. W. Barnes, New Orleans | | †67,926 |
| 3 | Ss. | P. H. Harwood, Galveston | | *64,003 |
| 3 | Ss. | Wm. Green, Boston | | *60,217 |
| 4 | Ss. | H. G. Wylie, New Orleans | | 40,792 |
| 4 | Ss. | Norman Bridge, Jacksonville | | *41,748 |
| 5 | Ss. | F. K. Lane, Philadelphia | | 61,609 |
| 5 | Ss. | C. E. Harwood, Baltimore | | †32,087 |
| 5 | Ss. | Cassimir, Tampa | | *43,264 |
| 6 | Ss. | Panoil, Miami | | *15,009 |
| 7 | Ss. | Fred Ewing, Portland | | *61,170 |
| 7 | Ss. | W. L. Steed, New Orleans. | | †76,215 |
| 8 | Ss. | P. H. Harwood, Galveston | | *66,090 |
| 9 | Ss. | J. M. Danziger, New Orleans | | 66,981 |
| 9 | Ss. | Mendocino, Philadelphia | | 56,128 |
| 9 | Ss. | J. O. Boyd, New Orleans | | †19,135 |
| 10 | Ss. | Invergordon, Liverpool | | *57,431 |
| 10 | Ss. | Huguenot, Texas City | | 67,046 |
| 10 | Ss. | F-Sulphur 6, Houston | | *40,704 |
| 11 | Ss. | Mirio, Boston | | *63,856 |
| 11 | Ss. | Meline, Providence | | *52,348 |
| 11 | Ss. | Fueloil, Miami | | *14,387 |
| 12 | Ss. | Cerro Ebano, New York | | *74,662 |
| 13 | Ss. | Nora, Providence | | 73,349 |
| 14 | Ss. | Dean Emery, Providence | | *66,417 |
| 14 | Ss. | G. G. Henry, Providence | | *60,942 |
| 14 | Ss. | Mexoil, Miami | | 14,767 |
| 15 | Ss. | Mantilla, Portland | | *51,884 |
| 15 | Ss. | Cassimir, Galveston | | *46,485 |
| 15 | Ss. | I. C. White, New York | | *63,180 |
| 16 | Ss. | C. A. Canfield, Fall River & Providence | | *59,902 |
| 17 | Ss. | W. H. Doheny, Boston | | *62,270 |
| 17 | Ss. | P.H. Harwood, Galveston | | *66,826 |
| 18 | Ss. | E. L. Doheny, 111, New Orleans | | 83,526 |
| 18 | Ss. | G. W. Barnes, New Orleans | | †72,396 |
| 19 | Ss. | Inveravon, Thamershaven | | *57,653 |
| 19 | Ss. | H. Walker, New York | | *65,560 |
| 19 | Ss. | F-Sulphur 6, Houston | | *40,313 |
| 20 | Ss. | Cedarhurst, Philadelphia | | 43,098 |
| 20 | Ss. | Norman Bridge, Tampa | | *41,196 |
| 20 | Ss. | Panoil, Miami | | *14,750 |
| 21 | Ss. | Montana, Philadelphia | | 62,361 |
| 21 | Ss. | J. M. Danziger, Providence | | *65,729 |
| 21 | Ss. | E. L. Doheny, Boston | | *59,251 |
| 22 | Ss. | Yaba, Philadelphia | | 13,780 |
| 22 | Ss. | F. R. Kellogg, Boston | | *63,482 |
| 23 | Ss. | Wm. Isom, Philadelphia | | 31,292 |
| 24 | Ss. | P. H. Harwood, New York | | *65,127 |
| 24 | Ss. | F. K. Lane, Panama | | *66,232 |
| 24 | Ss. | S. M. Spalding, New Orleans | | 71,397 |
| 25 | Ss. | H. G. Wylie, Jacksonville | | *39,425 |
| 25 | Ss. | Limicana, Holland | | 19,199 |
| 26 | Ss. | Wm. Green, New Orleans | | 70,907 |
| 26 | Ss. | Mexoil, Miami | | *14,860 |
| 26 | Ss. | E. L. Doheny, New York | | *72,727 |
| 27 | Ss. | Oyleric, Southampton | | *55,950 |
| | | Bunker Deliveries | | 184,416 |
| | | Total | | 3,369,095 |

**By Transcontinental Petroleum Co.**

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 1 | Ss. | Pioneer, | Jacksonville | 50,047 |
| 1 | Ss. | Montrolite, | Halifax | 56,302 |
| 1 | Ss. | Gedania, | Charleston | 75,729 |
| 2 | Ss. | S. B. Hunt, | Baytown | 65,791 |
| 2 | Ss. | Imlay, | Baltimore | 60,021 |
| 3 | Ss. | Vaarli, | Maurer, N. J. | 53,508 |
| 5 | Ss. | Malabar, | Baton Rouge | 71,130 |
| 6 | Brg. | Socony 89, | Providence | 25,704 |
| 7 | Ss. | Comet, | Providence | 19,081 |
| 7 | Ss. | Golaa, | New oYrk | 53,169 |
| 8 | Ss. | Mevania, | Baltimore | 64,349 |
| 8 | Ss. | Dora, | Key West | 43,901 |
| 8 | Ss. | Mary Luckenbach, Nuevitas & Preston | | 47,003 |
| 9 | Ss. | Glenpool, Havana & Boqueron | | 46,024 |
| 10 | Ss. | L. J. Drake, | Tampa | 52,005 |
| 10 | Ss. | Ardmore, | New York | 69,953 |
| 10 | Ss. | Cape Ann, | New York | 60,857 |
| 12 | Ss. | Albertolite, | New York | 71,727 |
| 12 | Ss. | Durango, | Baton Rouge, | 66,991 |
| 13 | Ss. | Vistula, | New York | 82,772 |
| 13 | Ss. | Cape Cod, | New York | 60,377 |
| 13 | Ss. | Eurana, | Porto Rican Ports | 42,914 |
| 13 | Ss. | Eurana, | Porto Rican Ports | *15,892 |
| 13 | Ss. | Halsey, | Baton Rouge | 65,605 |
| 14 | Ss. | Zoppot, | New York | 88,205 |
| 14 | Ss. | T. J. Williams, | Baytown | 72,332 |
| 14 | Ss. | Dillwyn, | Baton Rouge | 65,859 |
| 17 | Ss. | Malabar, | Baton Rouge | 69,068 |
| 17 | Ss. | Vancolite, | New York | 75,154 |
| 17 | Ss. | Victolite, | New York | 81,411 |
| 18 | Ss. | Dora, | Jacksonville | 48,671 |
| 19 | Ss. | Princeton, | Key West | 48,896 |
| 19 | Ss. | H. M. Flagler, | Baytown | 75,756 |
| 20 | Ss. | L. J. Drake, | Baton Rouge | 62,385 |
| 20 | Ss. | Agwimex, | Puerto Cortez, C. A. | *60,077 |
| 21 | Ss. | Brilliant & S. 90, | New York | 43,703 |
| 22 | Ss. | Caloria, | Cuba | 39,866 |
| 22 | Ss. | Gedania, | New York | 82,297 |
| 22 | Ss. | Glenpool, | Havana | 19,083 |
| 22 | Ss. | Glenpool, Cienfuegos & Havana | | *31,362 |
| 23 | Ss. | Hoxbar, | Baltimore | 65,214 |
| 23 | Ss. | Halsey, | New York | 64,994 |
| 23 | Ss. | Matinicock, | Baltimore | 72,668 |
| 23 | Ss. | Durango, | New York | 62,365 |
| 24 | Ss. | Montrolite, Cienfuegos & Boqueron | | 37,800 |
| 24 | Ss. | Montrolite, Cienfuegos & Boqueron | | *20,499 |
| 25 | Ss. | Dillwyn, | New York | 62,854 |
| 25 | Ss. | Imlay, | Baltimore | 63,680 |
| 25 | Ss. | Miskianza, | Boston | 60,263 |
| 26 | Ss. | Pioneer, | Mariel, Cuba | 46,406 |
| 28 | Ss. | Clement Smith, | New York | 65,566 |
| | | Bunker deliveries | | 103,672 |
| | | Total | | 3,010,955 |

**Cia. Mexicana Holandesa La Corona, S. A.**

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 3 | Ss. | Malmanger, | Holland | 57,117 |
| 5 | Ss. | Maricopa, | London | 58,146 |
| 5 | Ss. | Camden, | Cuba | *58,605 |
| 6 | Ss. | San Joaquin, | Havre | *33,536 |
| 6 | Ss. | San Joaquin, | Hamburg | 26,912 |
| 13 | Ss. | Dis. of Columbia, | Brunswick, Ga. | 63,829 |
| 16 | Ss. | Virginia, | Port Arthur | 63,147 |
| 17 | Ss. | Scot.Musician, | New York | *61,045 |
| 19 | Ss. | Camden, | Panama | *61,113 |
| 24 | Ss. | Virginia, | Port Arthur | 62,465 |
| 24 | Ss. | Scot. American, | United Kingdom | 58,081 |
| 26 | Ss. | Limicana, | Holland | 29,134 |
| 28 | Ss. | Foldenfford, | United Kingdom | †70,900 |
| | | Coastwise deliveries | | 150,685 |
| | | Bunker deliveries | | 78,247 |
| | | Total | | 931,962 |

**By Mexican Eagle Oil Co., Ltd.**

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 2 | Ss. | San Zotico, | New York | *50,442 |
| 2 | Ss. | San Manuel, | Lizard f/o | *45,243 |
| 6 | Ss. | San Tirso, | New York | *56,803 |
| 7 | Ss. | San Roberto, | B. Aires & Rosario | †80,174 |
| 15 | Ss. | Arncliffe, | La Plata, etc. | †15,642 |
| 16 | Ss. | San Leon, | Habana | *54,032 |
| 17 | Ss. | San Felix, | Lizard f/o | *91,009 |
| 23 | Ss. | San Zotico, | New York | *50,877 |
| 26 | Ss. | San Tirso, | Liverpool | *39,384 |
| 26 | Ss. | San Tirso, | Liverpool | †13,850 |
| 27 | Ss. | San Leon, | Lizard f/o | *47,736 |
| 28 | Ss. | Susan Maersk, | Guatemala | † 571 |
| | | Coastwise deliveries | | *30,718 |
| | | Coastwise deliveries | | 37,756 |
| | | Bunker deliveries | | 46,041 |
| | | Total | | 660,277 |

**By Mexican Sinclair Pet. Corp.**

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 2 | Ss. | A. E. Watts, | New Orleans. | 65,455 |
| 4 | Ss. | Madrono, | Tiverton | 55,307 |
| 7 | Ss. | Gene Crawley, | Cuba | 31,829 |
| 9 | Ss. | W. L. Connelly, | New Orleans | 32,703 |
| 10 | Ss. | Harry Farnum, | New Orleans | 30,218 |
| 15 | Ss. | E. W. Sinclair, | Limon Castilla, C. A. | 44,593 |
| 17 | Ss. | J. F. Farrell, | New Orleans | 65,886 |
| 18 | Ss. | Gene Crawley, | Cuba | 31,156 |
| 19 | Ss. | E. V. R. Thayer, | Cuba | 66,322 |
| 22 | Ss. | W. L. Connelly, | Cuba | 32,306 |
| 23 | Ss. | Aztec, | Fall River | 54,289 |
| 24 | Ss. | Madrono, | Cuba | 56,015 |
| 28 | Ss. | Gene Crawley, | New Orleans | 31,423 |
| | | Total | | 597,501 |

**By Mexican Gulf Co.**

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 1 | Ss. | Ligonier, | Savannah | 30,342 |
| 4 | Ss. | J. M. Guffey, | Galveston | 19,378 |
| 6 | Ss. | Gulfpoint, | Port Arthur | 69,124 |
| 7 | Ss. | Gulfstate, | Port Arthur | 65,980 |
| 12 | Ss. | J. M. Guffey, | Galveston | 19,282 |
| 13 | Ss. | Winifred, | Tampa | 18,271 |
| 14 | Ss. | Ligonier, | Savannah | 30,325 |
| 19 | Ss. | Gulfstar, | Port Arthur | 73,822 |
| 19 | Ss. | J. M. Guffey, | Galveston | 19,566 |
| 25 | Ss. | J. M. Guffey, | Galveston | 19,767 |
| 25 | Ss. | Winifred, | Port Tampa | 18,774 |
| 27 | Ss. | Gulfoil, | Port Arthur | 49,681 |
| 27 | Brg. | Shenango, | Port Arthur | 25,274 |
| | | Coastwise deliveries | | 37,495 |
| | | Bunker deliveries | | 28,950 |
| | | Total | | 526,031 |

**By East Coast Oil Co.**

| Feb. | Rig. | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 2 | Ss. | F-Sulphur 6, | Freeport | 26,129 |
| 5 | Ss. | F-Sulphur 1, | Freeport | 19,475 |
| 12 | Ss. | F-Sulphur 1, | Freeport | 18,961 |
| 12 | Ss. | Torres, | New Orleans | 51,658 |
| 17 | Ss. | F-Sulphur 1, | Freeport | 18,828 |
| 23 | Ss. | Torres, | New Orleans | 51,617 |
| 26 | Ss. | F-Sulphur 1, | Freeport | 19,231 |
| | | Bunker deliveries | | 4,184 |
| | | Total | | 210,084 |

**By The Texas Co.**

| Feb. | Rig. | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 14 | Ss. | Georgia, | Cienfuegos | 46,633 |
| 21 | Ss. | Louisiana, | Matanzas, etc. | 26,542 |
| 27 | Ss. | Texas, | Marcus Hook & Norfolk | *56,948 |
| | | Bunker deliveries | | 6,398 |
| | | Total | | 136,521 |

**By Empire Gas & Fuel Co.**

| Feb. | Rig. | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 13 | Ss. | Hampton Roads, | Philadelphia | 58,021 |
| 26 | Ss. | F-Sulphur 6, | New Orleans | 40,117 |
| | | Total | | 98,138 |

**By New England Fuel Oil Co.**

| Feb. | Rig. | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 12 | Ss. | Chuky, | Tocopilla | 60,902 |
| | | Bunker deliveries | | 7,296 |
| | | Total | | 68,198 |

**By Interocean Oil Co.**

| Feb. | Rig. | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 23 | Ss. | Sassimir, | Baltimore | 44,486 |
| | | Bunker deliveries | | 5,265 |
| | | Total | | 49,751 |

**By Pierce Oil Corp.**

| Feb. | Rig. | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 17 | Ss. | Catahoula, | Baltimore | *46,950 |
| | | Bunker deliveries | | 189 |
| | | Total | | 47,139 |

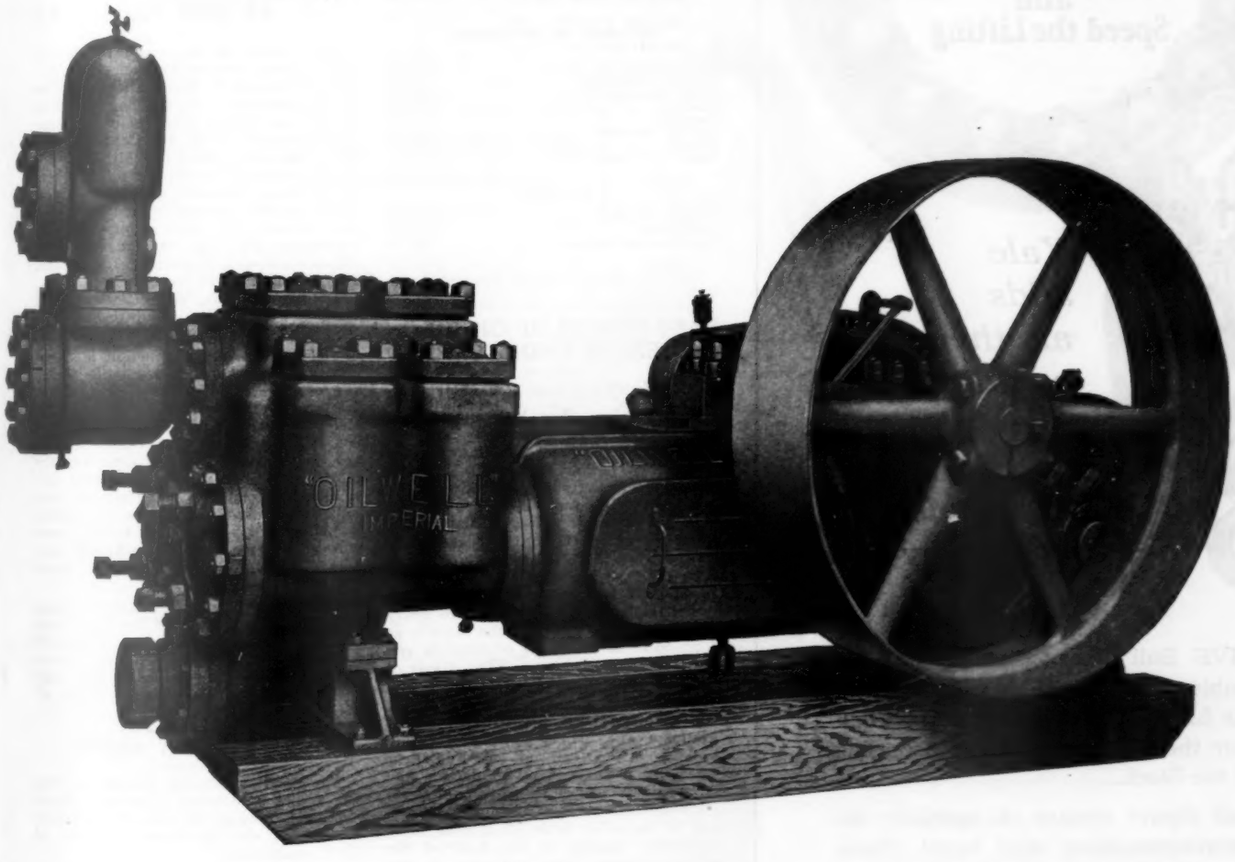
**By Mexican Oil Products Corp.**

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|

"OILWELL" EST'D 1862 C O TRADE MARK REGISTERED

# and Imperial "Giant Mud Hog" Pumps

## Power Driven




Designed for use where steam is either unavailable or undesirable.

Can be furnished for either belt drive or gear drive, and can be driven by any motive power.

Like the steam driven Imperial Pumps, the Power Driven Imperial "Mud Hog" will work against 500 pounds pressure, and the Power Driven Imperial "Giant Mud Hog" against 1,000 pounds pressure.

For further information inquire at any of our 100 Branches.

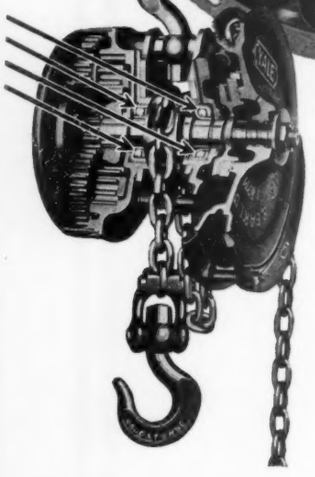
# UPPLY CO.

EQUIPMENT BRANCH STORES IN ALL OIL FIELDS

"OILWELL" EST'D 1862 C O TRADE MARK REGISTERED

TRADE YALE MARK

Ball Bearings to Lighten the Load and Speed the Lifting



*Yale adds another outstanding development in chain block efficiency*

MASSIVE Ball Bearings now make it possible to raise the load with a lighter pull on the hand chain—and these same ball bearings are the effective means of increasing the life of the block.

The load sheave rotates on specially designed chrome-vanadium steel balls! These ball bearings take the full load and greatly reduce friction at the most vital point—the heart of the block.

The buyer of a Yale Chain Block buys service. Yale Ball Bearing Spur-Geared Chain Blocks give the greatest service per dollar.

Yale Blocks are sold by leading dealers everywhere.

***Factory Locking Equipment. To acquire locking control, security and convenience throughout the factory, use Yale Master Keyed Locks.***

**The Yale & Towne Mfg. Co.**
Stamford, Conn., U. S. A.

YALE MADE IS YALE MARKED

YALE Hoisting and Conveying Systems

| | | | |
|---|---|---|---|
| 2 | Ss. | Vaba, New York | 45,451 |

By Panuco Boston Oil Co.

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 24 | Ss. | Vaba, | Philadelphia | 31,709 |

FROM PORT LOBOS

By Transcontinental Petroleum Co.

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 2 | Ss. | Gedania, | hCarleston | 15,706 |
| 13 | Ss. | Albertolite, | New York | 10,381 |
| 14 | Ss. | Vistula, | New York | 7,505 |
| 15 | Ss. | Zoppot, | New York | 11,289 |
| 18 | Ss. | Vancolite, | New York | 23,417 |
| 18 | Ss. | Victolite, | New York | 24,102 |
| 23 | Ss. | Gedania, | New York | 7,721 |
| | | Total | | 100,121 |

FROM TUXPAM

By Mexican Eagle Oil Co., Ltd.

| Feb. | Rig | Vessel | Destination | Bbls. |
|---|---|---|---|---|
| 2 | Ss. | San Melito, | Rio Janeiro | *14,532 |
| 8 | Ss. | San Patricio, | Devonport | * 6,914 |
| 18 | Ss. | San Felix, | Lizard f/o | *15,803 |
| | | Coastwise deliveries | | 114,618 |
| | | Bunker deliveries | | 49,237 |
| | | Total | | 201,104 |

FEBRUARY SUMMARY

| | |
|---|---|
| From Tampico | 9,682,812 |
| Port Lobos | 100,121 |
| Tuxpam | 201,104 |
| Total February, 1925 | 9,984,037 |
| Total February, 1924 | 11,797,476 |
| Decrease February, 1925 | 1,813,439 |

DIVISION OF MOVEMENT

| | |
|---|---|
| To United States | 7,047,111 |
| Cuba | 691,483 |
| United Kingdom | 618,100 |
| Mexican Coastwise | 271,271 |
| South America | 236,979 |
| Panama | 178,757 |
| Continent | 164,898 |
| Central America | 105,241 |
| Canada | 56,302 |
| Bunkers to balance) | 513,895 |
| Total | 9,984,037 |

CLASSES

| | |
|---|---|
| Crudes | 5,917,013 |
| Topped Crudes | 3,104,228 |
| Distillates | 448,896 |
| Bunkers (to balance) | 513,895 |
| Total | 9,984,037 |

*Denotes topped crudes; †denotes distillates.

## VAST STORES OF OIL IN MEXICO UNDISCOVERED

(Continued from Page 54)

a people, taking them high and low, as one of the finest on earth. Any man who goes into Mexico and gets into trouble has himself largely to blame. If he respects the rights of the Mexicans, they will meet him more than half way."

Of the future of the oil in Mexico Mr. Switzer spoke with firm confidence. He believes that the production of 1925 will exceed that of last year, which was over 139,000,000 bbls., with 40,797,000 bbls. in light oil and 98,273,000 bbls. in heavy crude. The big future of the country as a producer of oil is not centered in any one State in his opinion. The States of Coahuila and Nuevo Leon in the North, Tamaulipas, the most northerly of the Gulf States, and San Luis Potosi, just south of the above-named States and back from the Gulf, all offer excellent geological promise of oil production and large concessions have been granted to oil companies, most of them now operating in the older fields of Mexico. The Tamiahua lagoon, at the head of the famous Golden Lane and close to the largest light oil wells in the State of Vera Cruz, is believed by Mr. Switzer to overlie a great store of oil, and the lagoon, he said, is so shallow as to make drilling possible. Laguana Terminos, in the State of Campeche, is another big producing possibility in his opinion and he thought well enough of the possibilities of the southern end of Lower California to obtain a concession there for himself and his American and Mexican associates.

There will be no rush to explore the wildcat districts in Mexico, he said. The concessions are granted on liberal terms and cover a long period of years in most cases. There is not a spot in Mexico where a possibility of oil exists that will require deep drilling. Thirty-four hundred feet, Mr. Switzer believes, would be the maximum depth anywhere, but in most fields of exploration from 1,400 to around 2,000 feet will tell the oil man what he may expect. Most of the fields that look best to Mr. Switzer are so located that the transportation of oil to seaboard or railroad would offer no very expensive engineering problems.

The accompanying map which shows the portions of Mexico which contain structures that are possibly oil bearing, according to William R. Burr, geologist, Mr. Switzer approved for the most part, although there are areas designated by Burr in which Mr. Switzer thinks there is little or no possibility of petroleum, and other areas not designated by Burr on which Switzer looked with favor, particularly in the western part of the country along the Pacific Coast. A part of Zacatecas marked in black on the map does not look good to Switzer as a possible oil region, and he doubts that the long east and west streak marked in Michoacan and Guerrero is oil bearing, and he thinks that Burr has included about twice too much territory northward in Lower California.

Mr. Switzer has traveled all over the country, riding muleback many hundreds of miles down the west coast and through Lower California. He has returned to Mexico City.

## C. R. KRAUSE ELECTED AS VICE PRESIDENT

Lee C. Moore & Co., manufacturers of tubular steel derricks, announce the election of Charles R. Krause to the office of vice president. In his new position, Mr. Krause will be in charge of the company's interests in the Mid-Continent and Rocky Mountain districts. Mr. Krause's headquarters will remain in Tulsa, where the company operates a manufacturing plant for the service of customers in this territory, the main plants being in Pittsburgh, Pa. The company also has representatives in Shreveport, La., Dallas, Tex., Wichita Falls, Tex., Denver, Colo., and Casper, Wyo., all of whom will come under Mr. Krause's jurisdiction.

The Lee C. Moore & Co. were pioneers in the design and construction of tubular steel derricks, and are quite generally considered to be the largest manufacturers in their line of business, the Moore tubular derrick having found favor not only in the United States but in practically every oil-producing country in the world. In addition to steel derricks, the company manufactures and sells an extensive line of steel equipment, including bull wheels, calf wheels, band wheels, walking beams, machinery supports and many other structural parts of a drilling rig.

The promotion of Mr. Krause comes as a fitting recognition of his ability and loyal service, he having been connected with the Moore Co. for many years. Since 1921 he has been its western representative, in charge of the Tulsa office.

## ECONOMICALLY SOUND

The result producing benefits of The Oil and Gas Journal Classified Wants Section is helping the men of the industry to get the maximum good out of their equipment.

Good machinery, equipment, etc., is being kept in operation by reason of alert men buying and selling through the Classified Wants Section.

These men know that it is economically sound for a concern to sell good equipment which it cannot use. Therefore, thrifty executives use the Classified Wants Section as an economizing move that is helpful to the entire industry.

Read the advertisements in the Classified Wants Section every week. It will help you.

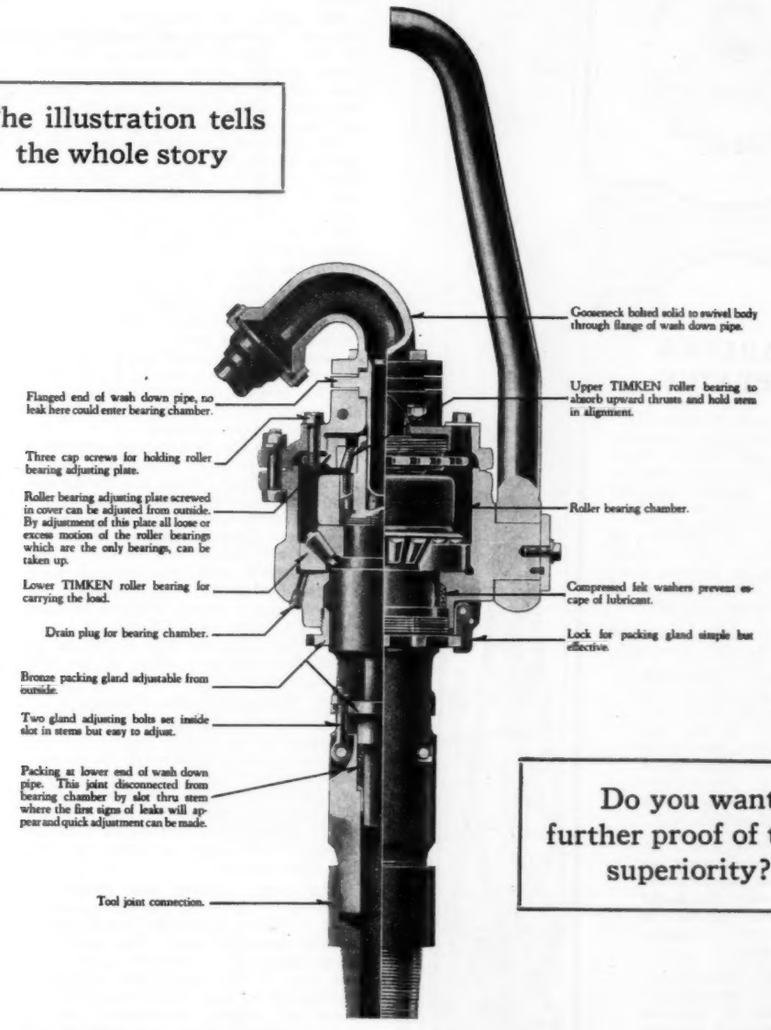
## TEXAS UNIVERSITY LEASES

AUSTIN, Tex., March 28.—Two measures governing the lease of University of Texas oil lands were passed by the Legislature. One places the lease on competitive bidding, instead of the flat lease price, the bids to be in addition to the usual 10 cents per acre. The leases will be five years. Time for drilling is extended. The annual rental is prescribed at not less than 10 cents the first year, 25 cents the second and 50 cents for each succeeding year. The other measure permits owners of oil and gas permits on University land to sell acreage in tracts of not less than 40 acres and authorizes the dissolution of combination of permits

# LUCEY Rotary Swivels

## *equipped with* TIMKEN *Roller Bearings*

The illustration tells the whole story


Gooseneck bolted solid to swivel body through flange of wash down pipe.
Upper TIMKEN roller bearing to absorb upward thrusts and hold stem in alignment.
Flanged end of wash down pipe, no leak here could enter bearing chamber.
Three cap screws for holding roller bearing adjusting plate.
Roller bearing adjusting plate screwed in cover can be adjusted from outside. By adjustment of this plate all loose or excess motion of the roller bearings which are the only bearings, can be taken up.
Roller bearing chamber.
Lower TIMKEN roller bearing for carrying the load.
Compressed felt washers prevent escape of lubricant.
Drain plug for bearing chamber.
Lock for packing gland simple but effective.
Bronze packing gland adjustable from outside.
Two gland adjusting bolts set inside slot in stems but easy to adjust.
Packing at lower end of wash down pipe. This joint disconnected from bearing chamber by slot thru stem where the first signs of leaks will appear and quick adjustment can be made.
Tool joint connection.

Do you want further proof of their superiority?

## Lucey Manufacturing Corporation.

*Wherever* THE NAME IS A LUCEY GUARANTEE *there's Oil*

**MAIN OFFICE AND WORKS**
**Chattanooga, Tennessee**
**Export Department: Woolworth Bldg., New York**

GARLOCK
Complete Quality Controlled Packing Service
THE INSIGNIA OF SERVICE — THE EMBLEM OF QUALITY
REGISTERED U.S.PAT.OFFICE
GARLOCK SERVICE
The Garlock Packing Company merchandises Asbestos, Rubber and Duck, Metal and Fibrous Packing Service that is complete for any mechanical or power unit.
Garlock Packings as recommended for specific conditions by Garlock Service Men are guaranteed to give entire satisfaction.
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2. Immediate deliveries to fill your urgent requirements from warehouse stocks carried in every industrial center.
3. The consultation and recommendations of Garlock Service Men who are Direct Factory Representatives.
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PALMYRA, N.Y. U.S.A.
CANADIAN GENERAL OFFICES AND FACTORY, HAMILTON ONT.
Sales Offices and Warehouses in all Principal Industrial Centers
The Standard Packing of the World


# DEVELOPMENT OF OIL CONCESSIONS ABROAD TO HAVE GENERAL EFFECT

By N. O. Fanning

NEW YORK, March 30.—The development of large oil concessions abroad, from which it is expected a constantly larger proportion of the world's production will come, promises important changes in the basic nature of production, the foundation of the oil business.

Concessions in Persia, South America and in many other countries range from 500,000 acres up, each concession representing a block which can be developed by only a single company. While there are certain contract obligations governing the development of such concessions between the governments and companies concerned, these are of minor importance.

The largest oil concession now in existence is that of the Anglo-Persian Oil Co. in Persia, aggregating 500,000 square miles. There are many concessions ranging from 1,000,000 to 5,000,000 acres each in South America, Central America, Africa and elsewhere.

The world's oil industry has been developed to date in the United States through highly competitive drilling. While this sort of development has been sharply criticized both in this country and abroad, still it must be admitted that without the rapid increase in production which resulted the progress of the oil business would have been much slower.

Overproduction, denounced as wasteful, has been the stimulus behind the development of new uses for petroleum, as evidenced by the present efforts to perfect engines using heavier oils to propel automobiles, railroad locomotives and ships; also the movement toward oil burning for domestic heating purposes.

At present the United States produces approximately 70 per cent of the world's petroleum output. What will be the economic nature of production when 70 per cent of the world's production comes from these large concessions abroad?

There will always be a certain amount of competitive drilling where oil pools underlie boundaries of concessions. But in most of the grants obtained to date, ranging in area from 500,000 to 5,000,000 acres, geologists have sought to include the outermost limits of the producing horizons.

### Example of One Concern

One oil company has 10,000,000 acres of leases in the United States, but this acreage is scattered through 20 or more States, and is for the most part in blocks of 1,000 acres or less. Practically all of this acreage is competitive, and will have to be developed in accordance with the actions of individuals or companies owning offset acreage.

The same concern has 200,000,000 acres under lease in foreign countries, most of which comprises large blocks of 500,000 acres or more. One concession alone amounts to 5,000,000 acres or 25 per cent of the total. This acreage is blocked off so that if geological calculations are correct, development can be carried out gradually and without any regard to offset drilling considerations. In other words, such acreage can be developed solely in accordance with competitive market requirements.

That this will create an entirely new situation, so far as production and prices for crude oil are concerned, is obvious. Developments of these concessions at first will be merely as they have been already in many instances, to make an actual test of the main structures, so an idea of the actual potential production can be had. Then facilities for transporting this oil will be supplied, and everything made ready for taking the oil out to market when the demand arises. But meanwhile most of the oil can be stored underground, instead of in steel tanks. Annual storage charges will be cut 75 per cent, compared with the present basis, according to a well informed oil engineer.

The methods of oil production development in the United States make it true that any given company owning acreage adjoining another's can only count on as much oil from that acreage as it is possible to take out of the ground and put in tanks. Its reserves consist entirely of the amount of oil it gauges in its tanks above ground. For that reason it often takes all of the oil from the ground it can get at a time when there is already too much above ground for market requirements. The result is heavy tank storage charges, which must be paid ultimately by the consumer, if the oil business is to break even.

Despite the evident inequality of such development methods, criticism of them is justified only when accompanied by constructive suggestions as to how the situation can be improved. Many oil men believe, however, that so long as acreage is owned in small blocks nothing can be done to improve matters without interfering with private property rights.

There are approximately 15,000 individuals and companies engaged in the production of crude petroleum in the United States, with an average of 2,000 acres of land controlled by each. In few cases is this acreage all in a single block. Many concerns having that much acreage have as little as 10 to 100 acres in a single county. The average output of each of these producers in 1924 was 47,000 bbls.

In Venezuela in the same year five companies produced approximately 25,000,000 bbls. of crude oil, an average of 5,000,000 bbls. each. These five companies control concessions aggregating 20,000,000 acres, most of it in blocks of 200,000 acres or more. Competition between concerns so situated has to do with the marketing end of the business rather than production, inasmuch as none will be forced to drill much at times when there is a depression in the markets.

### Investment Here and Abroad

The estimated investment in the oil business of the United States gives a good idea of where the money is spent under present conditions of development, conditions which have remained practically unchanged since 1859, when oil was first discovered.

This investment is divided about as follows:

| | |
|---|---|
| Production | 45 per cent |
| Storage (crude) | 5 per cent |
| Refineries | 25 per cent |
| Marketing | 9 per cent |
| Pipe lines | 8 per cent |
| Tank cars | 3 per cent |
| Tankers | 5 per cent |

Based on the development to date of a certain large oil concession abroad the investment will be apportioned as follows:

| | |
|---|---|
| Production | 20 per cent |
| Storage | 2 per cent |
| Refineries | 25 per cent |
| Marketing | 10 per cent. |
| Pipe lines | 20 per cent |
| Tank cars | 3 per cent |
| Tankers | 20 per cent |

Although results obtained on different concessions necessarily differ greatly, the inference to be drawn from a comparison of the investment in the oil business under domestic conditions and conditions abroad is that production costs will be cut more than half, while this saving will be offset somewhat by increased transportation expenses. The biggest increase in expenses in foreign development over those in the United States lies in the remoteness of many of the potentially large oil-producing concessions abroad, necessitating the construction of pipe lines several hundred miles through country difficult of access. Another increase in transportation expense lies in the necessity of transporting oil across the seas in tankers to existing refineries.

However, the saving in production expenses after initial drilling is completed will be even greater than that indicated by "investment," inasmuch as constant drilling of offset wells will be practical-

# vs a STONECUTTER

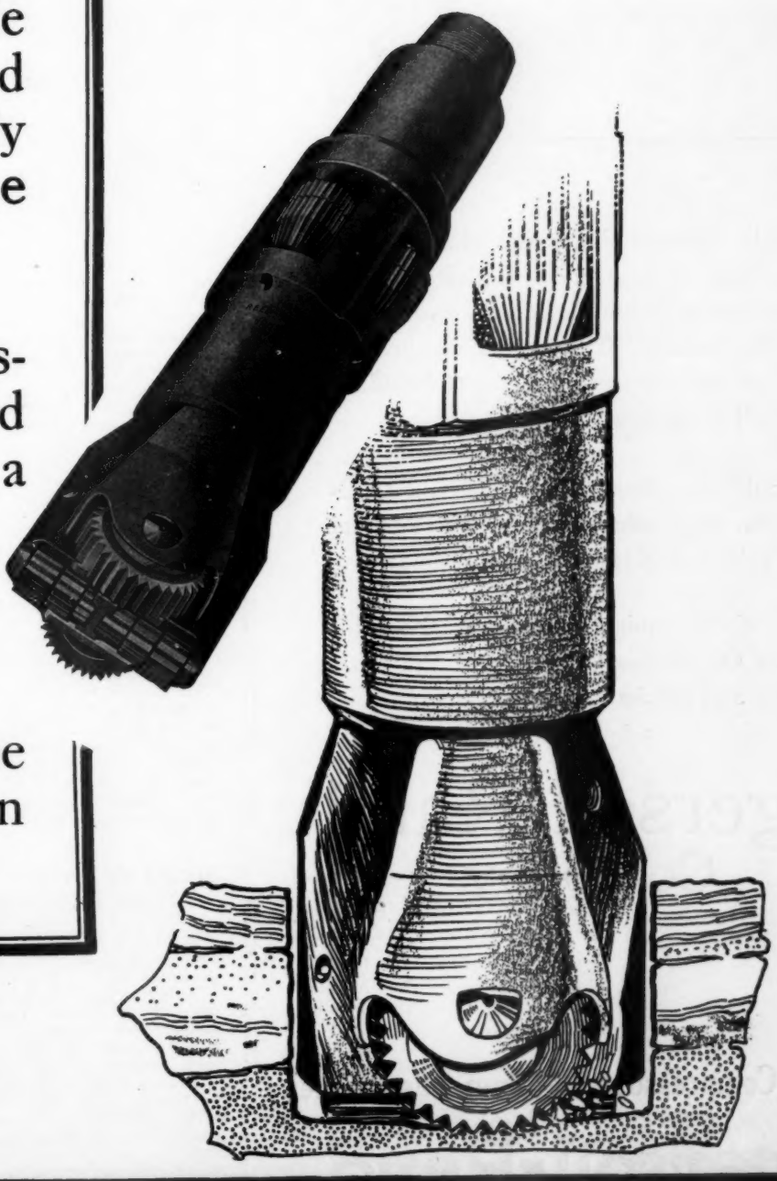
An ordinary dog can make a hole of some kind and will occasionally kick out some stone or gravel

BUT

when it's necessary to cut hard rock and leave a clean, straight hole

THEN

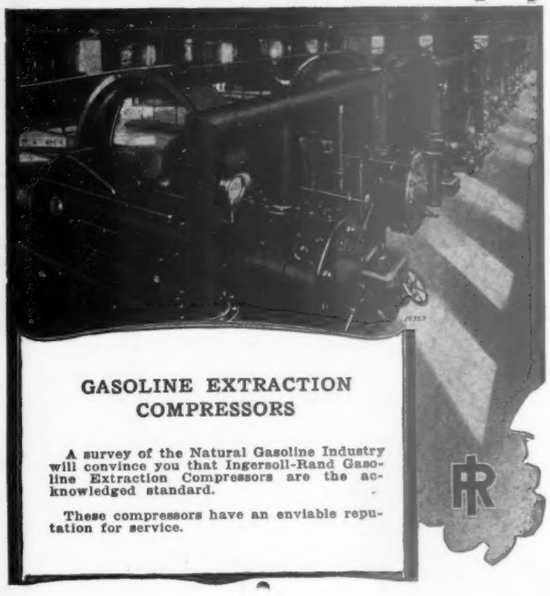
a REED ROLLER BIT can be depended upon every time.



MPANY

OS ANGELES

# At Mid-Kansas Oil & Gas Company



**GASOLINE EXTRACTION COMPRESSORS**

A survey of the Natural Gasoline Industry will convince you that Ingersoll-Rand Gasoline Extraction Compressors are the acknowledged standard.

These compressors have an enviable reputation for service.

In this modern absorption plant for the recovery of natural gasoline there are installed six 16" stroke Ingersoll-Rand XRB Gas Compressors. This type of compressor has long been acknowledged the standard for gasoline recovery work.

For driving these Ingersoll-Rand Compressors there are six Rathbun Vertical four-cycle Gas Engines.

The above equipment assures the Mid-Kansas Oil & Gas Company of the most reliable and efficient service.

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**Ingersoll-Rand**

794-C


ly eliminated. The above percentages refer only to initial costs.

The crux of the situation lies in the fact that while initial expense connected with development of large foreign concessions will be very large, the running expenses on the whole will be considerably smaller per barrel of oil produced than in the United States during the 60 years of its existence.

**Competitive Drilling**

An idea of the expense of producing oil in the United States under present conditions is gained from a study of the United States Geological Survey annual report on petroleum for 1918.

Production of crude that year amounted to approximately 356,000,000 bbls. There were 14,000,000 acres under lease. Production per acre under lease averaged 24 bbls. during the year. Although 15,246 wells were drilled, at the close of 1918 there were only 5,226 more producing wells than at the beginning. Only 12,111 of the 15,246 turned out to be producers, or about 79 per cent, while 5,885 stopped producing the year. That is the story of highly competitive drilling.

Figures taken from "The Oil Industry's Answer" show that more than $500,000,000 annually is spent in the United States in the drilling of wells. From the same source, annual costs of additional facilities necessary to supply the growing demand for oil are about as follows:

Refining capacity, $180,000,000.

Transportation facilities, land and water, $139,000,000.

Marketing facilities, $50,000,000

Additional tankage for crude and refined, $15,000,000.

The annual cost of drilling for oil is $116,000,000 more than all other expenditures combined. The estimates tabulated are based on expansion from 1919 to 1923, inclusive.

Despite the apparent advantages attendant upon development of large foreign concessions which contain large quantities of oil, the unalterable fact is that such development means building up from the very bottom, turning a jungle into a field for productive human energy at an immense initial cost, whereas in the United States a tremendous investment has already been made, the industry is a going one. For this reason foreign concessions will probably only be developed on a large scale when the United States, for natural causes, cannot be called upon to supply its present ratio of the world's needs. The transition from producing under domestic conditions to producing from large foreign concessions will be gradual.

Production in the United States comes from such a large area, with even larger areas yet to be developed, that more than a gradual decline in aggregate annual output cannot be expected.

More money each year is being spent in developing foreign concessions, however, as well as in construction of tankers to carry oil across the seas from these concessions to the large refining and marketing centers. Such expenditures are a tangible proof of the tendencies which have been suggested in this article.

## BOOKLET ON BUILDING OF FURNACE LININGS

The new edition of the Plibrico catalog has 36 pages. It is standard filing sizes—8½ by 11. A large section is devoted to the proper installation of monolithic furnace linings. This section, step by step, tells how monolithic linings should be installed. Another sets out the superiority of this type of furnace lining.

Sections describe the use of this lining for furnace fronts, arches, side walls and bridge walls in boiler furnaces and for heating furnaces, baking ovens, stills and other industrial furnace and miscellaneous applications. There is an interesting section on lining furnaces under oil burning boilers.

A free copy of this catalog will be sent to anyone interested by the Plibrico Jointless Firebrick Co., 1146 Clay Street, Chicago.

## ALL FREIGHT RATES TO BE INVESTIGATED

WASHINGTON, D. C., March 28.—In response to a congressional resolution, the Interstate Commerce Commission has instituted an investigation into the entire rate structure of the country to determine if any railroad rates cause undue advantage or discrimination between persons or localities in intrastate commerce on the one hand and interstate or foreign commerce on the other hand, or any discrimination against intrastate or foreign commerce.

The commission also is authorized to make such changes, adjustments and redistribution of rates as may be found necessary to correct any defects found to exist.

The commission will not enter at once on extensive hearings but will conduct the investigation in a manner conducive to full and orderly development of material facts, and with as little delay and expense to shippers, carriers and the Government, and as little disturbing effect upon production, distribution and the free flow of commerce as may be found practical.

## NEW STYLES IN OIL HANDLING EQUIPMENT

The A. Y. McDonald Manufacturing Co. of Dubuque, Iowa, announces the addition of new styles in certain of their lines as follows:

McDonald swing joint can now be furnished in sizes ranging from 2 inches to 12 inches, with a minimum of three bolt-adjustments for drawing down the packing gland. Joints in smaller than 2-inch sizes retain the two-bolt packing gland adjustment. Swing joint sizes 3-inch and above have a minimum of bolts in packing gland adjustment.

McDonald iron body gate valves, in the 2½ and 3-inch sizes can now be furnished with flange conections as well as with the familiar screw connections. This also holds true with respect to the McDonald lock gate valve in iron body type.

## PREVENTABLE WASTE OF LUBRICATING OIL

An interesting booklet issued by the Burt Manufacturing Co. of Akron, Ohio, makers of oil filters, exhaust heads and ventilators, has a valuable article on saving waste lubricating oil. It contains also illustrations and descriptions of the Cross oil filter, the Burt oil filtering system, the Warden oil filter, the American oil filter, oil reservoirs for oiling systems and oil pumps for oiling systems, with a section devoted specially to factory ventilation.

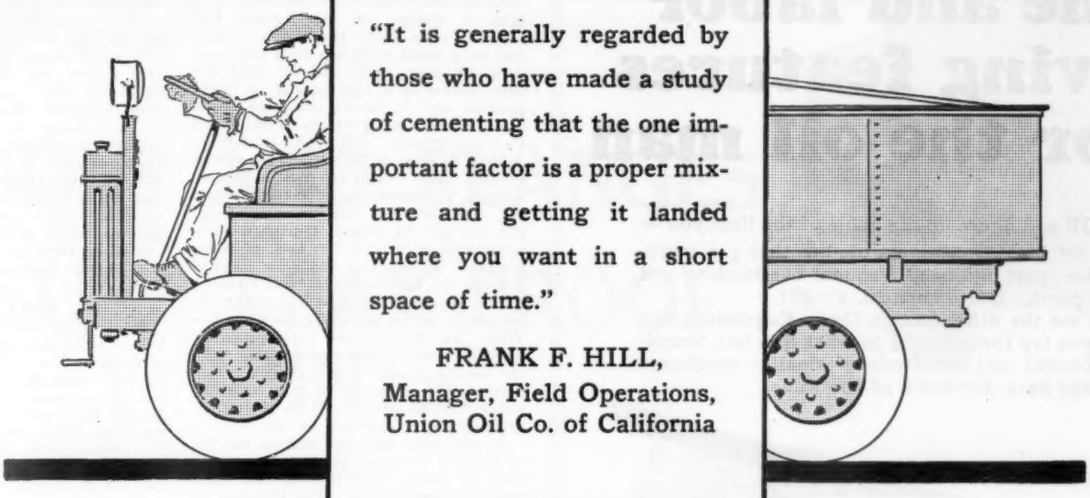
The company has lately completed two large additions to its factory equipped to manufacture sheet metal work of every description.

### VETERAN OFFICIAL RETIRES

William E. Green, assistant treasurer of the Standard Oil Co. of California has retired from active work after 35 years' service with the company, 30 years of which were spent in San Francisco. For many years he acted as cashier for the company and was advanced from that to the position from which he has just retired. His first work in the oil business was in the barrel plant of the Acme Oil Co. in Olean, N. Y., at the age of 14 years. Mr. Green plans an European trip.

### CONSERVATION OFFICER

Benjamin E. Mobley, of Ardmore, Okla., land owner and oil operator of the Healdton and Hewitt fields of Carter County, has been appointed officer in the Ardmore district of the oil and gas conservation bureau of the Corporation Commission, taking the place of J. W. Ryan, who was transferred to the Holdenville district. J. E. Amis, formerly in charge of the Holdenville district, was transferred to the Blackwell district, succeeding C. L. Roff, who retired from the service.



"It is generally regarded by those who have made a study of cementing that the one important factor is a proper mixture and getting it landed where you want in a short space of time."

FRANK F. HILL,
Manager, Field Operations,
Union Oil Co. of California

# HOW HALLIBURTON *Meets the* BIG REQUIREMENTS

Mr. Hill is right. Two of the big requirements in scientific oil well cementing are

(1) To get a proper mixture.
(2) To get it landed in a short space of time.

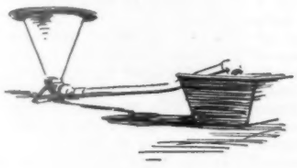
The patented Halliburton mixer mixes the batch so intimately that even the air usually present between the grains is removed.

And as for speed, Halliburton equipment has been so efficiently designed, and Halliburton workmen are so well trained, that in most cases the entire cementing operation is over in two hours.

If you believe in insurance, you believe in oil well cementing; and if you believe in oil well cementing, you will want to investigate the Halliburton process.

Our booklet, "Scientific Oil Well Cementing," is yours for the asking.

*The patented Halliburton Mixer which mixes 100 sacks of cement in 6 minutes.*



*Speed is the watchword of Halliburton workmen who are specially trained in Scientific Oil Well Cementing.*

**HALLIBURTON OIL WELL CEMENTING CO.**
**Duncan, Oklahoma**

*Equipment Available for all Fields*

# HALLIBURTON

*Scientific Oil Well Cementing*

# Time and labor saving features for the oil man

STOP and figure up the value of the time you've spent looking after regulators that get stuck, or rattle apart and need frequent overhauling and repair parts. Quite an item, alright.
You'll see the difference in Davis Regulators and after you try them, you'll do what Sinclair, Standard, Roxana and hundreds of smaller producers do—send back for more of the same.

The Davis Automatic Low Pressure Gas Regulator reduces a high gas pressure of 200 lbs. or less to a service pressure ranging from an ounce to 5 lbs. It has no stuffing box, operates without friction, and is extremely sensitive. The oil dash pot prevents vibration. Cost of installing is low because no outside piping is necessary. It closes tight and when closed is not affected by internal pressure changes.

The Davis Casing Head Gas Regulator is a compact, sturdy, simple automatic valve designed to control the vacuum on oil and gas wells, receivers, and tanks, in the manufacture of casing head gasoline. It has only one internal moveable part, a balanced bevel seated disc with graduated port openings which is securely coupled to a flexible diaphram.

Better keep the catalog handy. Write for yours to the G. M. Davis Regulator Co., 409 Milwaukee Ave., Chicago, or to Westcott and Greis, Inc., Tulsa, Okla.

*1875—Valve builders for fifty years—1925*

DAVIS VALVE
STEAM SAVERS SINCE 1875
SPECIALTIES

OGJ 4-2F-RTG


## PETROLEUM DEMAND GROWING IN CANADA

(Continued from Page 54)

field, a section of the foothill belt parallel to the Rocky Mountains, production on a small scale has been developed in a few deep wells, and the field has been marketing a high quality of "light gasoline oil" in small quantities since about 1916. Last year the Royalite Oil Co., an Imperial Oil, Ltd. subsidiary, drilling on Section 7-20-2w5, encountered around 3,700 feet, a gas flow estimated between 17,000,000 and 20,000,000 feet a day, with enormous rock pressure. From this wet gas, by means of drips, a daily production of around 300 bbls. of crude naphtha is secured, which is handled through the Imperial refinery at Calgary. This represents the most important development in the history of the Canadian West. The Royalite No. 4 was primarily intended to test still deeper horizons; and the coming season will undoubtedly see further drilling by the Royalite interests, either for this purpose, or to extend the producing area disclosed by No. 4.

In the same field the McLeod Oil Co. of Calgary last year got a fair show of light oil around 2,500 feet but will likely carry its test deeper. The Chicago interests now in control of Southern Alberta Oils, Ltd., may do some additional work on that company's holdings.

### To Test Other Areas

Two similar areas in the Rocky Mountain foothills will be further tested this season by Imperial Oil, Ltd. South of the Turner Valley-Okotoks Field, Imperial Oil, Ltd., has an unfinished test at Rice Creek, in the Willow Creek area west of Nanton. Two previous Willow Creek tests produced rather negative results, but lent some encouragement for further drilling. The Rice Creek test should be completed this season.

Further north, in the Brazeau foothills west of Edmonton, Imperial Oil, Ltd. will this season continue an important test near Coalspur. Well No. 1 in this area was abandoned owing to drilling difficulties. No. 2 is now below 1,000 feet and should be finished this year. The results in both these areas are of course problematical, but there is a reasonable prospect of results similar to those in the Turney Valley-Okotoks Field.

The second promising area in Alberta is the Irma-Wainwright Field in east central Alberta, about 100 miles east of Edmonton. In this field the existence of an extensive gas field, with production around 1,800 to 1,900 feet depth, has been pretty well demonstrated, and it is probable that this is an extension of the Viking gas field further west.

Besides a number of gas wells drilled at various times, there are in the Irma-Wainwright Field at least two wells with what looks like a commercial production of crude oil. These are Nos. 2 and 4 of the British Petroleums, Ltd., a Vancouver, B. C. company. Production is secured in 2,000 feet or less, the oil is a heavy asphaltic crude, and both wells are reported to flow by heads, but no official estimates have yet been made of the actual production. No. 1 was a gasser, while the company had rather inconclusive results in No. 3 well. The heavy crude in Nos. 2 and 4 was encountered in an horizon above that where production was looked for, and consequently none of the wells has yet been carried to the depth originally intended. It is probable that the company will continue No. 3 as a deep test before starting No. 5. The latter is rigged up but has not spudded in. A tank car of the heavy crude from No. 4 was shipped some time ago to the Canadian National Railways for experimental use as fuel oil for locomotives, being the first crude oil shipped from the field. British Petroleums, Ltd. will continue drilling this year with, probably, two outfits.

Outside the British Petroleums, Ltd. the Maple Leaf Oil & Gas Co. has a completed gasser, and its No. 2 test is rigged up; what work will be done this season has not been determined. The Western Consolidated Oils, Ltd. has an unfinished test which will be completed this season, and a second test will be started early this spring near the British Petroleums group of wells. This company is also planning to operate with two strings of tools throughout the season. Wainwright Oil Producers Syndicate has a town lot test at Wainwright, which is down about 400 feet and the Irma Oil Holdings, Ltd. is reported down about the same depth with a local test at Irma. Both these companies will, it is expected, continue work this year. British Wainwright Oil Co., Ltd. has a rig up for a test to be finished this season. There is no other work definitely in contemplation for this field, though farther south the West Regent Oil & Gas Co. of Calgary may do some additional work on its test near Monitor, which is now below 3,300 feet. The Globe Drilling Co. has an unfinished test in the Pigeon Lake district, near Wetaskiwin.

### Many Island Lake District

In southeastern Alberta, the Many Island Lake district, 35 miles northeast of Medicine Hat, will see some additional drilling. Arrangements have been made for the completion this year of the Community Oil Wells, Ltd. test. This test was down 2,471 feet with a crooked hole, the drilling with the straight hole will actually resume around 1,700 feet. The test will be carried to 3,000 feet or deeper if necessary to make a conclusive test of the lower horizons in this field. Gas has been met at several horizons but the test is primarily for oil. The Many Island Oil & Gas Co. and the Canadian-American Oil & Gas Co. are expected to each drill one well this season; while on the Saskatchewan side of the interprovincial boundary a test will be drilled by Regina interests.

In the Medicine Hat gas field, two deep tests are possible. Definite arrangements have been made by A. E. Roth of Independence, Kans., for a deep test for oil at Medicine Hat, the city, which provides the leases, to take over any gas production. This test will be drilled to 3,200 feet. At Bull's Head, south of Medicine Hat, the Medicine Hat Petroleum Co. has an unfinished test down about 800 feet, which may be continued as a deep test for oil.

In the Sweetgrass area, just north of the Montana boundary, the Canadian Oil & Refining Co. has contracted for the deepening of its Imperial-Rogers well, now down 2,700 feet. This well, which has a large gas production at 2,500 feet, is also being deepened for oil. A mile north Imperial Oil, Ltd. will this season finish its Dead Horse Coulee No. 2 test, drilled lower on the same structures. This test is now down about 1,000 feet. The Quarantine Reserve area near Coutts is inactive, though some leases are still held by Lethbridge and other local interests, and there is a prospect that Australian capital may carry one of the unfinished tests in this area to a conclusive depth. West of Coutts, L. R. Olsen and associates are planning a second test of the Red Coulee structure, where Imperial Oil, Ltd. several years ago got a show of oil but failed to develop commercial production.

### Other Operations

Normal drilling for gas will be carried on this year by the Northwestern Utilities, Ltd. in the Viking Field and by the Canadian Western Natural Gas Co. in the Foremost Field. Carbon black projects are mooted by the Sarnia Oil & Gas Co. in the Many Island Lake area and by A. A. Rogers and associates in the Peace River Field, where there are already large quantities of waste gas. In the Athabaska area, tar sand operations will be continued by McMurray Asphaltum & Oils, Ltd. and a new project for developing the tar sands by a German process is being mooted by the Anglo-Canadian Collieries & Refineries, Ltd.

A factor which militates against early development of any potential oil fields in Alberta is the very restricted nature of the drilling operations now being carried on. Development of an area as extensive as all the oil producing areas of the American west combined by means of a dozen or a score of active tests a year is inevitably a slow and tedious process. The situation will undoubtedly be helped if the Canadian Government adheres to its announced intention of removing the

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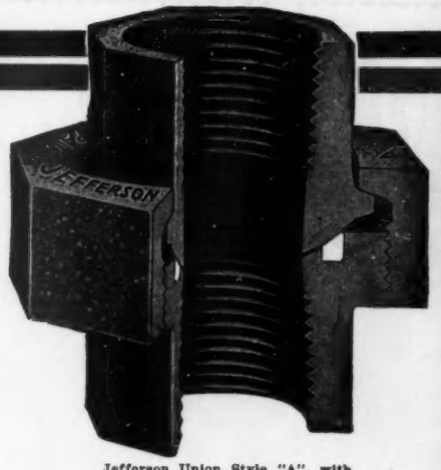
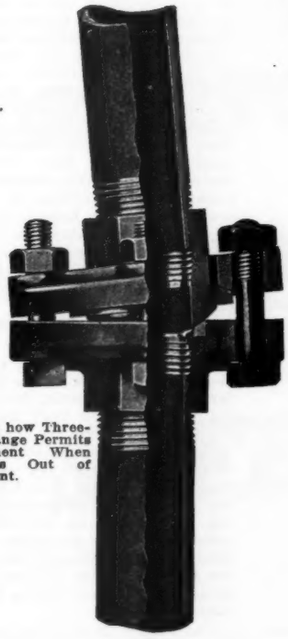
# UNIONS AND FLANGES INSURE LEAK-PROOF JOINTS




Jefferson Union Style "A", with Brass Seat Ring.

Three-Part Flange Style "B" for 200 lbs. Pressure.



Showing how Three-Part Flange Permits Adjustment When Pipe Is Out of Alignment.

Two-Part Flange, Style "D", for 500 lbs. and Style "E" for 1,000 lbs. Pressure.

The leadership of JEFFERSON Unions and flanges is directly attributable to merit. The Jefferson Union Company specializes in the manufacture of patented unions, flanges, and fittings, and has perfected its products in every detail. Materials used are highest grade air-refined malleable iron and high grade brass. Seat rings are located away from the runways of the fittings. The parts of each fitting are ground together and kept in pairs to insure perfect-fitting ground ball joints. JEFFERSONS are giving satisfactory service wherever pipe is used.

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# CONTINENTAL

present duty against drilling machinery and certain classes of casing, though such a step would have been more effective in encouraging new development when the eyes of oil operators were centered on the west as the result of the Fort Norman boom a few years ago.

At the present juncture, it would seem that 1925 should bring fairly conclusive results in the Irma-Wainwright, Field and perhaps further production in the Turner Valley Field. The Coalspur and Willow Creek districts of the foothills may be either proven or definitely eliminated before the close of the present year; while the possibilities of the deeper horizons in Many Island Lake area and of the Sweetgrass area east of Coutts should also be definitely determined. With the limited amount of drilling now under way, however, even if all, these areas develop production, it is hardly likely that they will become extensive factors in the crude oil market in the course of 1925.

## EASTERN FIELDS

(Continued from Page 52)

pended to take the temperature at the 2,000-foot depth.

**Boone County Production**

On Joes Creek, Sherman district, Boone County, the Pure Oil Co. has completed and shot in the Berea grit No. 202 on the Williams Coal Co.'s tract. It is good for 20 bbls. a day. On the same tract, the same company has the rig completed for No. 222. In Washington district, Pleasants County, Gallaher & West have a 3-bbl. pumper in the Cow run sand at No. 5 on the Gallaher heirs' farm.

In Collins Settlement district, Lewis County, the Hope Natural Gas Co. completed in the Gantz sand a test on the Mary E. Edmonston farm. It is a fair gasser. On Five Mile Creek, Burning Springs district, Wirt County, the Hope Construction & Refining Co. completed a second test on the Rebecca J. Hays farm good for 4 bbls. a day. In McElroy district, Tyler County, the Hope Construction & Refining Co. drilled its second test on the Hannah Merritt farm through the Maxom sand and dry. It will be drilled to the Big Injun sand.

In Union district, Lincoln County, the Cambridge Gas Co. has a gasser in the Berea grit at a test on the Thomas Nidy farm. In Otter district, Braxton County, the Ohio Fuel Oil Co.'s test on the G. W. Garwig farm is dry in all sands. In Clay district, Monongalia County, the South Penn Oil Co.'s test on the McDermott-Tennant farm is a light gasser in the Bayard sand. This company is drilling an old well on the Peter Tennant farm to the same formation. In Lincoln district, Marion County, the Owens Bottle & Machine Gas Co. has a salt sand gasser at a second test on the J. C. Ice farm.

On Flaggy Meadow branch of Buffalo Creek, Mannington district, Marion County, the South Penn Oil Co. shot and cleaned out its old well on the Koen-McGraw farm. It is producing 2 bbls. a day. On Big Buffalo Creek, Union district, Tyler County, this company has a gasser in the Big Injun sand good for 1,000,000 feet a day on the Olive Hess farm. In Clay district, Monogalia County, the Dunn-Mar Oil & Gas Co. drilled No. 5 on the Minor Tennant farm to the Bayard sand. It is a light gasser.

**Drilling and Starting Tests**

In Duval district, Lincoln County, the West Side Gas Co. has placed a drilling machine at a location on the M. D. Goode farm. In Union district, the Foote Oil & Gas Co. is drilling on the J. M. Peck farm. The Star Producing Co., after a protracted fishing job at its test in McComas district, Cabell County, abandoned the tools, skidded the rig and started a new hole. In Center district, Gilmer County, the Hope Natural Gas Co. has a bad hole at 1,900 feet on the J. E. Arbuckle farm. In the same district, the company has made a location on the James Wilson, Parsons Bennet and W. O. Bennett farms. In DeKalb district, the Pittsburgh & West Virginia Gas Co. started to drill on the J. S. Stalnaker farm. The Valley Oil & Gas Co. shut down at 1,700 feet on the William Bennett farm. The Hope Natural Gas Co. started to drill on the G. Rice farm, in Sherman district, Calhoun County. In Center district, Godfrey L. Cabot is drilling another test on the D. M. Whipkey farm.

In Clay district, Ritchie County, the Carter Oil Co. is moving tools to a location on the L. S. Doak farm. In Tygard district, Wood County, J. W. West & Co. moved a drilling machine to a location on the Frank Harriott farm.

**Due in the Sand**

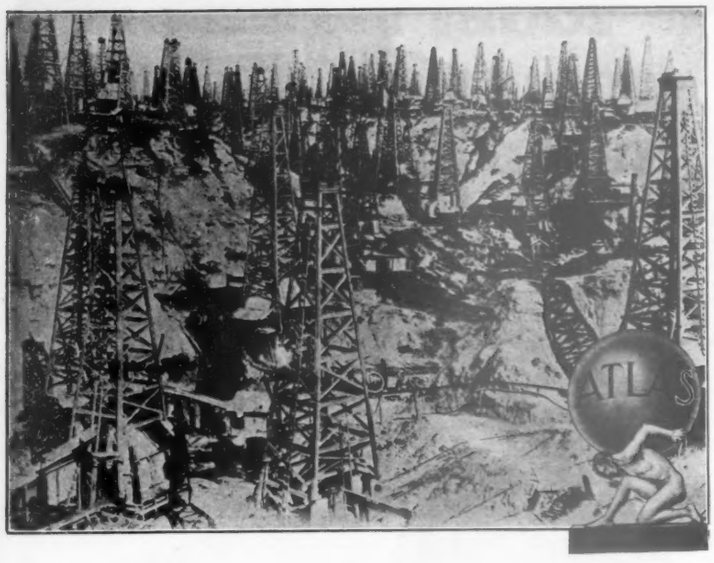
In Burning Springs district, Wirt County, the Hope Construction & Refining Co. is due in the sand at a second test on the Rebecca Hays farm. The West Fork Oil & Gas Co. started to drill on the E. R. Hammond farm, in Collins Settlement district, Lewis County. This company is building a rig on the H. C. Ramsey farm. In Glenville district, Gilmer County, Campbell & Co. started to drill on the Lloyd West farm. In Simpson district, Harrison County, the Aizpurin Gas Co. is fishing for tools on the Nathan Richards farm. In Eagle district, F. F. Coger is fishing at 2,361 feet on the F. F. Coger farm. In McElroy district, Tyler County, the Hope Natural Gas Co. is running the 3¼-inch casing on the Hannah Merritt farm. In Meads district, Harry Lambert has a rig up on the A. H. McGinnis farm. In Clay district, Ritchie County, Parker & Smith have shut down on the R. T. Haymand heirs' farm. In Elk district, Harrison County, R. T. Lowndes is drilling at 2,815 feet on his own farm. In Sardis district, the Hope Natural Gas Co. has rigged up on the John Harbert farm. In Greenbrier district, Doddridge County, George Travis is hauling rig timbers to a location on the August Drainer farm. In the same district, the Hope Construction & Refining Co. made a location on the Bridget-Conley farm. In Ten-Mile district, Harrison County, the Delva Tex Oil Co. started to drill on the Nora B. Lanhan farm.

**Roane County**

In Smithfield district, Roane County, the Carter Oil Co. is rigging up on the Simmons heirs' farm. In the same district, the United Fuel Gas Co. started to drill on the James A. Cutlip farm. In Geary district, the Elins Oil & Gas Co. is drilling on the Holly Jarvis farm. In Spencer district, the company is building a rig on the J. L. Meadows farm. In Grant district, Pleasants County, the Faith Oil & Gas Co. is starting another test on the Hammett heirs' farm. In Sheridan district, Calhoun County, the Hope Construction & Refining Co. started to drill on the G. W. Hardman farm, on Lemuels run. In West Union district, Doddridge County, O. C. Henry has the rig completed on the G. W. Knight farm. The Carnegie Natural Gas Co. has the rig completed for a second test on the Floyd Goff farm. In Murphy district, the Hope Natural Gas Co. has a rig up on the J. M. Summers farm. In Central district, Doddridge County, Roy Shinn has rig material at a location on the R. Smith farm. In Coal Township, Harrison County, the Hope Natural Gas Co. is drilling at 3,100 feet on the S. W. Greene farm.

**Southwest Pennsylvania**

On Black run, a branch of Dunkard Creek, Perry Township, Greene County, the Carnegie Natural Gas Co. has drilled a test on the Lee Wade farm into the Big Injun sand and the hole filled up 1,200 feet with fluid. Its status as a producer cannot be ascertained until after it has been drilled deeper. Some estimates place its production as high as 100 bbls. This estimate is likely too high. In Aleppo Township, O. S. Orndoff completed a test on the Charles Tetrow farm dry in all sands. In the same township the Carnegie Natural Gas Co. has a gasser good for 500,000 feet in the Gordon stray at a test on the Morgan Lewis farm.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**Crescent Thermometers**


## HALL PROCESS BLENDS RICH AND LEAN PRODUCT

(Continued from Page 60)

is below the minimum of 500 B. T. U. per cubic foot. If the attempt be made, as it sometimes is, to directly make gas of standard richness, the quality of the by-products suffers; there is neither a production of high grade tar nor of high grade lamp black.

"In the present invention, I meet these difficulties by making two grades of gas separately and afterwards blending or mixing them to produce the standard richness of gas; one portion of gas, the richer, being made under the optimum conditions for the production of high grade tar and the other portion being made under the optimum conditions for making good lamp black. In so doing, I accomplish the desired result of a maximum value of by-products with the production of standard city gas. The legal requirements as regards the calorific value of city gas vary in different cities, but they are usually between the stated limits of 500 and 600 B. T. U. per cubic foot. The present process may be so conducted as to attain any particular richness desired within these limits.

### Cracking Treatment

"In making oil gas, the oil is usually first given a gas-making cracking treatment in retorts or checkers maintained at about a red heat and the oil gas is then fixed in checkers of refractory material; these checkers being alternately heated by combustion therein and used to deliver heat to the oil gas. In one embodiment of my invention, my ends may be readily accomplished by firing or heating a pair of checkers in series. In so doing, the first checker in which combustion takes place is heated to a considerably higher temperature than the second; and the first checker may then be used for producing lean gas and lamp black, while the second checker is used for producing rich gas and tar. Generally, however, I use separately operated sets of checkers for the two operations.

"In the accompanying illustration I have shown, more or less diagrammatically, apparatus susceptible of use in performing the described method of making standard gas and high grade by-products.

"In this showing, Figure 1 is a diagramatic view in elevation of a pair of connected checkers operating in series as regards firing and in parallel as regards gas making, and Figure 2 is a diagrammatic showing in the nature of a flow sheet of an installation of apparatus for separately making the two grades of gas stated.

"In the showing of Figure 1, elements 1 and 2 are a pair of checker chambers connected at their base by valved connection 3. At the top of the checker chamber 1 is a blast inlet 4 and at the top of the other checker chamber 2 is blast outlet 5. At the top of checker chamber 1 is oil or oil gas inlet 6 and at its base is gas outlet 7, leading through seal 8 to lamp black washers, purifiers, etc., not shown. At the top of the second or lower temperature checker is oil or oil gas inlet 9 and at its base is outlet 10 leading through seal pot 11 to tar washers, scrubbers, purifiers, etc., not shown.

### Operations of Device

"In the operation of the device of Figure 1 air or a blast of hot products of combustion coming from suitable firing means (not shown) is led into and through the two checkers in series, entering at 4 and discharging at 5. When firing is complete, blast outlet 5 is closed and communication between the checkers at 3 is interrupted. The firing results in heating the first checker to a much higher temperature than the second. Any suitable mineral oil may be sprayed in at 6 or alternatively I preliminarily gasify the oil at about a red heat (600 degrees to 700 degrees Centigrade), using any suitable apparatus, such as externally heated checkers, retorts, etc., and lead in the oil gas at 6. Oil sprayed in is at once gasified producing oil gas, but as this consumes heat, it is often better to do as stated, preliminarily gasifying the oil elsewhere. The oil or oil gas passing through 1 is gassified at a very high temperature, 1,000 Centigrade or more, with production of lamp black and a lean gas, usually of about 450 B. T. U. This gas consists mainly of hydrogen, and the carbon of the oil gas is practically entirely delivered as lamp black. In a similar way, oil or oil gas is led into the second checker through 9 and is gasified or fixed at a lower tar-forming temperature, say, around 850 degrees to 900 degrees Centigrade, with production of large amounts of high grade tar and of a gas which, after scrubbing free of benzene and the like, will have a thermal value of about 1,100 B. T. U. per cubic foot. The two grades of gas, after purification, scrubbing, removing volatile oils, etc., are mingled in the proportions to give a gas of the particular standard richness desired.

### More Carbon Devices

"As the gas fixed at the comparatively low optimum temperature for the production of high grade tar is quite rich, being much above the stated standard strength, it is usually desirable to have the high temperature fixing, or lamp black making, devices greater in number or of more capacity than the low temperature devices. Such an arrangement is shown in figure 2. In this showing, elements A, B, C and D are four high temperature fixing chambers, while E is a low temperature fixer or tar producing device. A, B, C and D are run in parallel to produce lamp black and a gas of, say 450 B. T. U. The gas and lamp black pass through the lamp black recovery devices indicated diagrammatically and marked L, the gas going thence to scrubbers S, and finally to a relief holder, so marked. phe tar producing fixer E usually gives a gas of a richness around 1,100 B. T. U. With the particular installation shown and with A, B, C, D and E, all of about the same fixing capacity, a gas of about 580 B. T. U. per cubic foot (after scrubbing) will be collected in the relief holder. The gas and tar produced in E go through tar recovery apparatus market T and a scrubber S. The rich gas of, say 1,100 B. T. U. finally goes to the relief holder as shown by the arrow. The mixed or blended gases in the relief holder shown carry vapors of benzene, toluene, naphthalene, etc., raising the apparent calorific value of the blended gas above (580 B. T. U.), but these vapors are recovered in a diagramatically shown apparatus marked 'Oil Washer,' thereby reducing the calorific value of the gas to the standard desired. From the oil washer, the standard gas goes, as shown by the arrow, to ordinary exhausters and purifiers, designated as a whole by P.

"The final gas produced is freed from hydrogen bisulphide and other impurities in the usual ways.

### Atmospheric Pressure

"In the various operations, pressure greater or less than atmospheric may be used, but working at the ordinary pressure, or merely enough above the same to allow movement of gases, does sufficiently well. The present process may be applied to any of the petroleum oils or distillates, such as crude oil, topped oils, solar oil, gas oil, still residua, etc.

"In the operation producing rich gas, tar and by-products, where benzene and toluene are to be used for chemical purposes the temperature limits in the cracking operation should be about the range stated, that is, between 850 degrees and 900 degrees Centigrade, as for these purposes the absence of petroleum hydrocarbons is a desideratum; but where, as sometimes happens, the volatile oils are to be used for motor purposes, fuel, etc., a somewhat lower temperature in cracking to make rich gas is permissible.

"What I claim is:—

1. "In the manufacture of standard city gas from oil with the production of valuable by-products, the process which comprises fixing oil gas at a temperature adapted to produce rich gas and thin tar, fixing another portion of oil gas at a temperature of 1,000 degrees Centigrade, or higher to produce lean gas and lamp black, and blending the rich gas and the lean gas to make an average gas between 500 and 600 B. T. U. per cubic foot.

2. "In the manufacture of standard

# Deepest Well Ever Drilled

*With a Drilling Machine—5503 Feet—A Leidecker Drilled It, of Course*

The well illustrated above is located on the Westcott farm near Belle Valley, Ohio. This is by far the deepest well ever drilled with a drilling machine. This machine, our No. 24, is rated for depths to 3,000 feet. One of our standard LEIDECKER 12 x 12 drilling engines is operating the machine, using two boilers to furnish steam. The machine will pull the tools in 14 minutes from the depth above mentioned.

This attainment in drilling to a depth almost twice its rated capacity indicates the exceptional strength and dependability of this machine—our foresight in making every part of the machine at least twice as strong as necessary to properly function at its rated capacity—why LEIDECKER Drilling Machines have for over 30 years made records in drilling wells in exceptional time at a low cost—and why the life of these machines is usually two or three times that of any other make.

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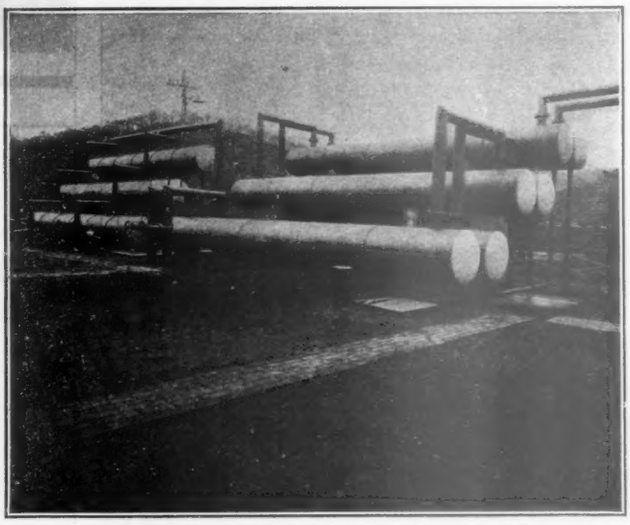

# Beyond the Competitive Stage

It is not a boastful claim, but a plain statement of an admitted fact, to say that the Hope Company is the one concern in the country qualified by experience, organized as to engineering and construction personnel, always ready with mechanical equipment, and proved capable by actual achievement, for any engineering or construction operation in the oil and gas industries.

Wherever the operation may lie, whatever its nature, and whether it be large or small, the Hope Company is the one logical concern to handle it—if speed, quality and maximum return on the investment are ruling factors.

HOPE SERVICE

**Engineering counsel, design, construction and contracting—in pipe lines for oil and gas, oil pumping stations, gas compressing and boosting plants, gasoline recovery systems, city and intercity gas mains.**

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MT. VERNON, OHIO, U. S. A.

city gas from oil with production of valuable by-products, the process which comprises passing oil gas through different checkers operating in parallel and of different temperatures, one such checker being at a temperature below 900 degrees Centigrade, and another such checker being at a temperature of 1,000 degrees Centigrade or higher collecting and removing tar from the effulent gas from the first checker collecting and removing lamp black from the effulent gas coming from the second checker, and blending the gas from the two checkers in such proportions as to give an average gas with a calorific value between 500 and 600 B. T. U. per cubic foot."

## REPORTS AGAINST GAS LINE TO NEW ORLEANS

NEW ORLEANS, March 28.—Much regret was expressed in this city over the findings of the Porter survey that piping natural gas from the Monroe gas fields to New Orleans would be prohibitive.

J. L. Porter began a survey of natural gas possibilities for this city several months ago, submitted his report to the commission council which he found the idea of piping natural gas from north Louisiana was prohibitive.

"The price of the consumers here would exceed the cost of artificial production," the Porter report said.

The Porter findings do not coincide with all other engineering surveys, but it is admitted that it is a serious blow.

"It is not final," Commissioner Maloney said. The principal reasons given by Mr. Porter why the cost of piping natural gas here would be prohibitive are:

Relative short life of the Monroe Fields, which is placed at 13 years under the reduced consumption by carbon black interests; the length of the pipe line necessary to bring the product to New Orleans, and climatic conditions here, which prevent the the development of a long enough and great enough heating load to produce a volume which could economically carry pipe line costs.

The cost of the 16-inch pipe line was estimated by Mr. Porter at $9,000,000, and to this he added $1,500,000. which he said would be spent to prevent enormous leakage through pipe connection in the present distribution system in New Orleans. Interest for two years during construction at 7 per cent also was added to the cost, making an initial outlay of $11,970,000.

Two years would be required for the construction and at the end of that time but 10 years would remain in which the investment could be amortized. To affect this Mr. Porter set up for annual operating charges over the 10-year period including interest totaling $837,900; amortization fund, $1,197,000; risk, $358,-100; charge for overhead, $150,000, and mantenance, $50,000—a total of $2,744,-000.

## OWN FILLING STATION FOR FARMER AND TRUCK

Merchandising methods are advancing in the petroleum industry as in all lines of trade. A very important problem is to find a means of holding customers. This is more difficult than before there were so many stations. Improved roads have also made the farmers' business a material unit.

The Save Gas Sales Corp., 343 South Dearborn Street, Chicago, is putting out a "home edition" of a gasoline pump which attached to a barrel or tank allows the car owner to fill his gasoline tank by turning a crank. In short, he gives himself filling station service. With this handy pump the farmer or truck fleet owner buys his gasoline from tank wagons, thereby saving considerable time and money. The jobber sells the pump to his customers with an agreement to supply the gasoline at market prices. It is figured the repeat business justifies the plan.

## CENTRAL WEST

(Continued from Page 50)

15, shot with 260 quarts, failed to make even a rainbow showing. In Eagle Township, Star & Clark's No. 2 Alice Stauffer farm, Section 5, pumped 40 bbls. In the same township, Dave Kirk Jr. and others are drilling No. 7 Levi Gorby, Section 7. J. M. Steen and others are drilling No. 27 E. M. Crozier, same section, while S. Porter and others started drilling a second well on the J. W. McClelland, Section 7. In Liberty Township, the Ohio Oil Co. abandoned No. 17 Justus Chase farm, Section 10, and No. 1 J. M. Cusac farm, Section 9, while it is drilling a test on the J. Cooper Jr. farm, Section 3.

### Allen County

In Marion Township, Allen County, the Ohio Oil Co.'s No. 9 in the northwest corner of the D. H. Counseller farm, Section 13, pumped 8 bbls. In Spencer Township, the South Fork Oil Co.'s No. 2, about 200 feet from the south line and 1,320 from the west line of the E. Reynolds farm in the northeast quarter Section 27, pumped 7 bbls.

In Sandusky Township, Sandusky County, the Root Oil Co. abandoned the old No. 1 well on the Walter Root farm, Section 19. In Jackson Township, B. J. Rineboldt is drilling No. 6 on his own farm, Section 30, and the North Lime Oil Co. is drilling No. 11 on the Edward Hummell No. 2 farm, Section 17. In Madison Township, the Ohio Oil Co. is drilling No. 5 on the Sylvia M. Ladt farm, Section 18.

In Gibson Township, Mercer County, I. E. Weibel and others' No. 3 Henry Leckner farm, 200 feet from the north line and 750 from the east line of the farm, pumped 7 bbls. Top of the Trenton was found at 1,092 feet and drilled 48 feet in. In Liberty Township, the Celina Petroleum Co.'s No. 3 in the southeast corner of the Brehm Brothers' farm in the southeast quarter, Section 4, pumped 15 bbls. In Butler Township, the Lauber Oil & Gas Co.'s test in the northeast corner of the Malinda Beams farm in the northwest quarter Section 21, produced around 200,000 feet of gas. Top of sand was found at 1,044 feet and drilled 146 feet into a total depth of 1,190 feet.

In Waterville Township, Lucas County, the Waterville Oil & Gas Co.'s second well, 650 feet from the north line and 900 feet from the west line of the U. G. Denman farm, known as School Lands, in Lot 7, produced 200,000 feet of gas from the Trenton which was found at 1,142 feet and the gas at 50 feet in. East of Toledo, in Jerusalem Township, same county, the Ohio Oil Co. is drilling No. 12 on the R. H. and M. A. Eck farm, Section 33.

In Jackson Township, Seneca County, G. W. Michaels' No. 5 well in the southeast corner of the Mary A. Miller farm, Section 17, pumped 4 bbls. from the Trenton at 1,258 feet.

In the Elmore Field, in Harris Township, Ottawa County, Gus, Magsig and sons' No. 6 in the northeast corner of the J. D. Smith farm in the northeast quarter Section 23, pumped 10 bbls. at 1,306 feet, and drilling No. 4 on the W. E. Stewart, same section.

The Sun Oil Co. is drilling a second test well on the Wooster Reidbe farm, Section 11, Texas Township, Crawford County and far to the southeast of known Trenton production. The first test made on this farm, made a nice showing, but found it to be only a pocket of oil.

### Indiana Field

The southern section of Indiana is likely to be given some very important wildcat work during the current year. The newest venture is being made by Murray, Howard and others on the Huppert 160-acres, in Section 15, Township 4 south, Range 5 west, in the northwestern corner of Spencer County, about 2 miles east of the town of Dale and from 25 to 30 miles almost due north of Owensboro, Ky. The outcome of this venture will be watched with much interest being far removed from any known production. This test is north and a little

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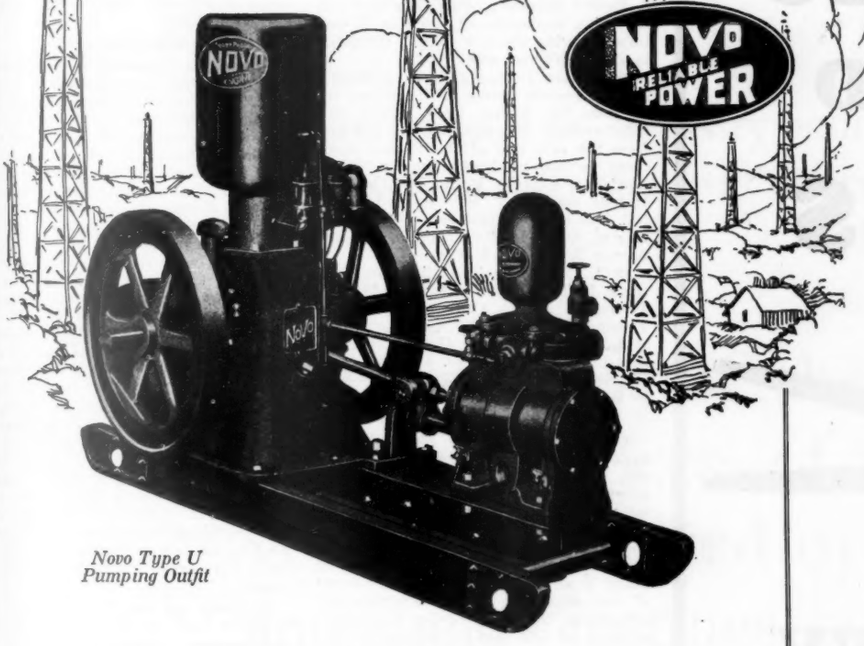
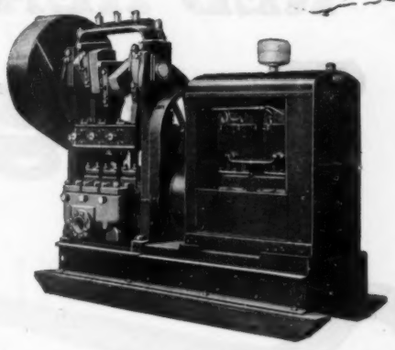


*Novo Type U Pumping Outfit*



Novo Triplex Pumping Outfit with Novo 40 H. P. Engine. Capacity, 43 gallons per minute at 1000 pounds pressure. A large, heavy duty outfit.

YOU must have a dependable water supply for your drilling operations.

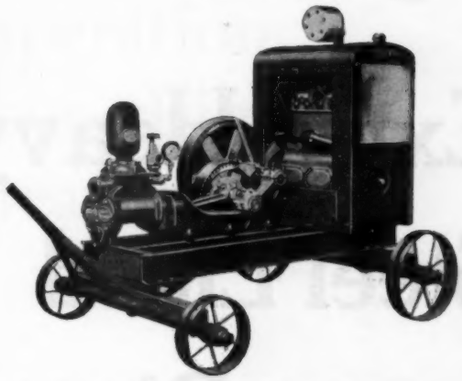
You may have to bring your water two or three miles; you may have to pump against a stiff elevation.

Novo Pumping Outfits deliver 24-Hour-a-Day Service week after week. They do this easily and do it well.

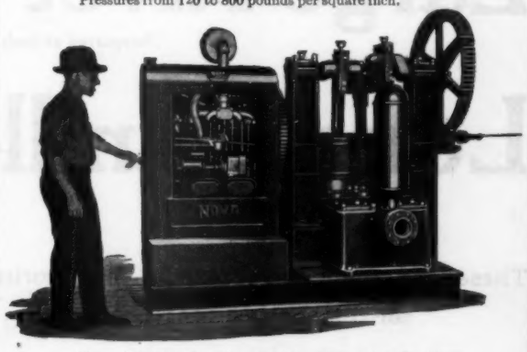
With little attention other than the supplying of fuel and oil, Novo Pumping Outfits deliver service as dependable as steam pumps and at much less cost.

Sooner or later you will be convinced that these sturdy units are the most economical and dependable means of supplying water for your job.

It will pay you to get in touch with us now and be prepared when an emergency arises.



Novo Type W Pumping Outfits. Powered with Novo Single, Two and Four Cylinder Industrial Engines (6 to 18 H.P.). Capacities from 13 to 130 gallons per minute. Pressures from 120 to 800 pounds per square inch.



Novo Triplex Pumping Outfits. Powered with Novo Single, Two and Four Cylinder Industrial Engines (4 to 40 H.P.). Capacities from 18 to 200 gallons per minute. Pressures from 150 to 250 pounds per square inch.

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# NOVO POWER
## Keeps Operations Moving

**ENGINES**
Single Cylinder, 1½-10 H.P. (frost proof)—two cylinder, 6-12 H.P.—four cylinder, 12-40 H.P.

**HOISTS**
Single and double drum—one and two speed and reversible, portable heavy duty types—powered with Novo Engines

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**PUMPS**
Open and closed top diaphragm—centrifugal—deep well—single, duplex double acting and triplex pressure pumps.

**COMPRESSORS**
Three sizes up to 170 cubic feet—with steel housings—mounted on trucks. Combination hoists and compressors

# Transit
## RED HEAD
# Tongs

# Extra Heavy
# Steel Lined
# Large Rivet
(Supported at both ends)
# Long Handles

These features have made them the favorite tongs for the heaviest pipe line work.

## NATIONAL TRANSIT
## PUMP & MACHINE CO.
OIL CITY, PA.

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TULSA HOUSTON DENVER


west of the Owensboro district of Kentucky and east and a little south of the Princeton district of southwestern Indiana. The chances are very good for the opening of producing regions in the southern part of the Hoosier State and the surface indications are ideal.

The recent completion of the Ohio Oil Co., on the T. J. Parker farm, Section 6, Monroe Township, Pike County, which showed a production of 105 bbls. is destined to bring about a drilling campaign in that particular area.

In Turman Township, Sullivan County, on the western border of the State, the Farmers Oil & Gas Co.'s second test, 660 feet from the north line and 250 feet from the east line of the Russell Abell farm, in the southwest quarter of the southwest quarter, Section 14, pumped 15 bbls. while J. T. Bolinger and others' No. 2 in the northeast corner of W. W. Harris' farm, in the northeast quarter, Section 2, pumped 5 bbls.

D. L. Thompson is drilling No. 6 on the J. H. Barr farm, Section 28, Wabash Township, Adams County, in the old Trenton Rock district. In Penn Township, Jay County, the Geological Products Corp. is drilling No. 3 on the C. C. Harris farm, Section 16, near the town of Balbec.

### Illinois Fields

Development work is picking up to some extent in various parts of Illinois and good weather will bring about a greater amount of work, very much of which will be on the wildcat order. Reports from Charleston are that H. McCurdy has drilled in a dry hole at a test on the northwest corner of the C. E. Jodry 5 acres, in the southwest quarter of the southwest quarter, Section 10, Charleston Township, Coles County, at a depth of 570 feet. This duster does not deter him and his associates from further testing of the territory around Charleston, as he holds leases on approximately 12,000 acres, and agreed to drill 10 tests. Mr. McCurdy and associates have started an important test on the Ernest Courtney farm, in the northeast quarter of the northwest quarter, Section 4, Ashmore Township, Coles County, and about 5 miles east of Charleston, northwest of the once famous Westfield gusher territory north of Casey, in Clark County, where shallow wells showed production in the hundreds of barrels flush. The present drilling location appears to be looked upon as very favorable by the owners and they expect to open some producing territory of value before the 10 wells are drilled.

McCurdy and others' do not expect to get their test started on the John Baxter farm, Section 28, Pope Township, Fayette County, until sometime in April, although the pipe is at the location. This is purely a wildcat being between the Bond County gas field and the oil field near Sandoval, in Marion County. The location is looked upon as very favorable being to the northwest of the Sandoval Field and a little east of north from the Wade Township Field in Clinton County. This is the first test to be drilled in the vicinity of Patoka for close to 18 years. This area of Illinois is being closely watched as the Sandoval Field of Marion County and the Clinton County Field were excellent ones in their days.

Another dry hole has been added to the Allendale Field of Wabash Township, Wabash County, drilled by Dewees & Smith on the northeast corner of the E. Hutchinson farm in the southwest quarter, Section 23, at a total of 1,513 feet.

In Dennison Township, Lawrence County, the Big Four Oil & Gas Co.'s No. 35 and 950 feet from the north line and 200 from the east line of the E. J. Seed farm, Section 22, produced 25 bbls. from the Buchannan sand at a depth of 1,310 feet.

In Robinson Township, Crawford County, Homer Baker and others test, 200 feet from the north line and 800 feet from the west line of the Johnson heirs farm, in the northeast quarter Section 3, pumped 2 bbls. In Martin Township, the Ohio Oil Co.'s No. 19 well, 660 feet from the south and east lines of the W. L Hughes farm, in the northwest quarter Section 27, pumped 2 bbls.

In Parker Township, Clark County, Lusk and Stratton's test, 465 feet from the south line and 390 feet from the east line of the G. L. Wiser farm, in the southwest quarter of the southwest quarter, Section 15, pumped 6 bbls. from a depth of 483 feet. No. 2 same farm, has started drilling.

### Jackson County Field

One of the interesting outside fields of Illinois is that centered around what is known as the Ava-Campbells Hill Field in the northwestern part of Jackson County, between East St. Louis and Cario in the southwestern portion of Illinois. This first developed into a gas producing area but later oil in commercial quantities was found and in sufficient quantities to attract attention from far away operators, but when the best wells came in the big wells in other fields attracted attention from what looks like a nice field, hence, the cause of the field being but little known to the trade. It is almost a one-company field so far, as the Mid-Egypt Oil & Gas Co. has done up to this time practically all the development of the field and is the pioneer company.

Jackson County looks like a coming oil field. If this field was in Kentucky there would be a rush for leases. Leases in Jackson County can be obtained for little cost and with territory running less than 1,000 feet in depth is not really an expensive kind of development. There are now about five strings of tools under way in the field and a large number of wells have been completed the past few years.

The well on the Floming farm that made 75 bbls. per day has settled to a nice pumper. The oil sand in the wells is found around 850 feet with 17 to 30 feet of nice brown sand. The gas is found around a depth of 1,200 feet. Gas lines have been laid to Murphysboro and other nearby towns all consisting of over 100 miles of pipe line. The oil is being run in a field line to the town of Ava and shipped in tank cars. The oil is 37 degrees gravity. The production is pretty well confined to Sections 12 and 14 in Bradley Township, of Jackson County.

There are two new wells on the Rickenburg farm, and a pumping outfit is being installed, while No. 3 is drilling No. 6 on the Carter farm; another in Section 14, also one on the Arby farm, Section 8, will be watched with interest. The Arby well is in the Sugar Hill section, where good showings have been found.

On the Floming farm, there are three oil wells, two gas wells and one dry hole. In Section 12, Bradley Township, on the Ditch farm, the first oil well of note was completed in Jackson County and completed in 1923 and five wells have been completed on the farm.

On the east of the Ditch farm there are two oil wells and three gas wells on the Carter farm. On the Modiz farm adjoining the Ditch farm, to the north, there are three oil wells and one gas well. To the south on the Carley farm are two gas wells. On the Cluster farm, two oil and one gas. On the Rickenburg, adjoining the Cluster on the east, are three oil and one gas, all in Section 12.

A well is now being drilled on the George Ziebold farm, most of the operations being under the supervision of the Mid-Egypt Oil & Gas Co.

### Central Ohio Field

In the Cleveland Field, in Strongville Township, Cuyahoga County, in the north end of the Central Ohio Field, the East Ohio Gas Co.'s No. 2 on the southeast corner of the Gust Stalter farm, in the southeast quarter, Lot 96, is a duster in the Clinton formation at a total depth of 3,015 feet.

In Monroe Township, Holmes County, the East Ohio Gas Co. has a fair gas well at No. 1 on the B. C. Bird farm, Lot 4.

In Sutton Township, Meigs County, W. N. Norris has a 5 or 6-bbl. well in a test on the Jasper Jividen farm.

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And perfected by the swift course of time."
—*Shakespeare*

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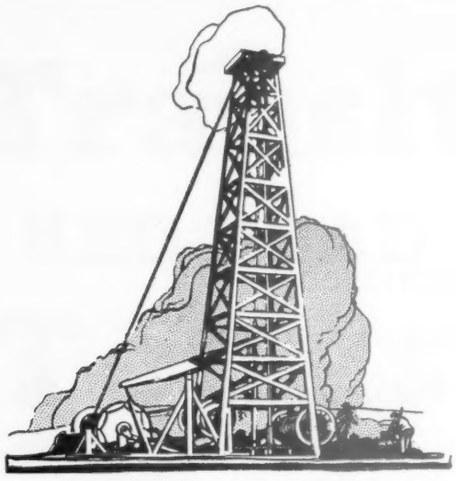

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*Agents throughout the oil fields*

THE HOOVEN & ALLISON COMPANY
*"Spinners of fine cordage since 1869"*
XENIA, OHIO

## KENTUCKY-TENNESSEE

(Continued from Page 50)

an increase of 634 bbls. in flush production, 3 more dusters, 2 less gassers and 1 more abandoned hole. The wells were distributed by counties as follows:

| County— | Comp. | Wells Prod. | Prod. | Dry | Gas | Abd. |
|---|---|---|---|---|---|---|
| Barren | 8 | 5 | 55 | 3 | 0 | 0 |
| Warren | 5 | 2 | 21 | 1 | 0 | 2 |
| Allen | 4 | 3 | 18 | 0 | 0 | 1 |
| Johnson-Magoffin | 3 | 3 | 35 | 0 | 0 | 0 |
| Johnson-Lawrence | 3 | 3 | 92 | 0 | 0 | 0 |
| Wayne | 3 | 1 | 8 | 2 | 0 | 0 |
| Cumberland | 3 | 3 | 513 | 0 | 0 | 0 |
| Lee-Owsley | 2 | 1 | 6 | 1 | 0 | 0 |
| Owensboro district | 2 | 0 | 0 | 2 | 0 | 0 |
| Russell | 1 | 0 | 0 | 1 | 0 | 0 |
| Floyd | 1 | 0 | 0 | 0 | 1 | 0 |
| Elliott | 1 | 1 | 4 | 0 | 0 | 0 |
| Total | 36 | 22 | 752 | 10 | 1 | 3 |
| Last week | 25 | 13 | 118 | 7 | 2 | 2 |
| Difference | 11 | 9 | 634 | 3 | 2 | 1 |

### Barren County

The completion of two good oil wells in the Hall Baker Pool, 2 miles north of Glasgow, in addition to the big gasser drilled in a week ago on the Turner lease, extending the pool, has centered attraction on that portion of Barren County again.

The Consolidated Gas Co. completed Nos. 7 and 8 on the Hall Baker farm and after being shot showed for about 20 bbls. each at 180 feet below the black shale. The wells are now being connected up and will be put to pumping at once. The big power plant, which is able to pump 40 wells at one time, has just been completed. In this same pool, T. J. Samson's No. 1 Preston has the earmarks of a good gas well. It is only a short distance from the Turner lease where the Consolidated got its prize gasser. Same party's No. 1 Dean is dry and No. 2 Ben Myers, also of Samson's pumped 20 bbls. at 512 feet.

In the Emery-Moore Pool, west of Glasgow, Stafford & Roedener got a 7-bbl. pumper at 435 feet, 185 feet below the shale in No. 3 on the Price place; the Star Oil Co.'s No. 16 Ritchie made 11 bbls. on power at 185 feet below the shale after being shot with 30 quarts of nitro.

A wildcat drilled by the Wood Oil Co. on the Duff farm, 4 miles north of Glasgow and 2 miles north of Hall Baker Pool, was dry and plugged in the deeper pay. The rig is being moved to a new location on the Harvey farm, 1 mile to the north of Duff, where the Wood will make a test.

In Gorby Section, south of the Emery-Moore are the Big Jack Oil & Development Co.'s No. 2 Hatfield was a duster in the deep pay. No. 1 is a small pumper.

Twelve rigs are running in the Emery-Moore Pool, to the west of Glasgow, which was opened two years ago. This is one of the standard pools of Barren County, and while no big wells have come in recently, the field is noted for stayers. The work now going on is in every stage from spudding to down past the shale. In Gorby Pool, six wells are progressing and in the Hall Baker area nine wells are under way.

There is some scattering work going on all over the county, some of wildcat nature. Lewis Emery Jr. and Sons Co. is testing the Cox farm, 2 miles below Glasgow Junction and the C. W. Bellamy tract, between Bon Ayr and Glasgow Junction. Hammerly and others are progressing on a deep test near Haywood and Fred Williams is going ahead in No. 1 Franklin near Coral Hill.

### Warren County

In Warren County, the Amfot Oil Corporation scored a 20-bbl. starter in No. 10 on the Jess Shanks farm, in the McLemore-Gillespie-Price Pool, 12 miles to the southwest of Bowling Green at a total depth of 1,132 feet. The shale was from 966 to 1,054 feet and the sand from 1,104 to 1,132 feet, which was shot with 100 quarts. Nos. 8 and 9 are both on top the sand and the rig from No. 10 will be moved over these two holes for completion.

In the Rockfield area, Caskey & Pryor abandoned a location on the Price farm and Russell and others discontinued drilling on the Lee Butts farm on account of litigation over the title.

In the famous Sandidge Pool, opened by Makeever Brothers of Boston, Mass., the Cadet Oil & Gas Co.'s No. 22 Biddle proved a failure, as it only showed for 1 bbl. in the deep sand at 1,152 feet. This is shallow territory and has shown some very good wells from the Mississippian lime ranging from 500 to 700 feet in depth. The Sandidge lease is one of the best shallow tracts in western Kentucky as the wells hold up their production after settling for an indefinite period.

### Other West Kentucky Completions

In the Owensboro district, the Wood Oil Co.'s No. 3 J. M. Bartley and Thomas and associates' No. 3 J. H. Evans proved unproductive and were abandoned. The leases are in the Collier Station Pool, north of Pellville.

In Russell County, Redman and others' No. 1 A. O. Lay is reported dry at 500 feet.

### Eastern Division

Thirteen completions were made in the eastern division of the State the past week. Nine were oil producers with a flush of 145 bbls., 3 were dusters and the other was a gasser. The best was the Union Oil & Gas Co.'s No. 8 on the famous C. K. Dobyne tract, in the northern extension of the Martha Pool, which made 70 bbls. the first pumping from the Weir sand at about 756 feet. It is in Section 22 of the Lawrence and Johnson Counties Weir sand district.

In the same area Garrison & Townsend's No. 1 Lizzie Collier showed 10 bbls. when placed on the jack, from the Weir sand.

In district No. 33, William Stone & Co.'s No. 7 Ira Lester is pumping 12 bbls. from the Weir formation.

In the South Weir Field of Johnson and Magoffin Counties, the Model Oil Co. brought in its third producer on the Jess Adams place, district No. 31, for 20 bbls. flush from the Weir sand. The Bed Rock Co.'s No. 2 C. Sayler is pumping 7 bbls. from the Weir.

The Reno Oil & Gas Co.'s No. 9 Patton Borders, district No. 25, showed 8 bbls. when put on the power from the Weir sand.

### Other Completions

In Lee-Owsley Counties, the Atlantic Oil Producing Co.'s No. 1 Hamp Flannery is dry at 1,200 feet; the Superior Oil Corp.'s No. 24, J. D. Smythe, district No. 16, showed for 6 bbls.

Frank & Daugherty's No. 2 C. W. Burnett, district No. 2, in Wayne County, is dry in the Beaver sand, No. 1 in this sand make 100 bbls. flush. Bridgman & others' No. 3 J. N. Huffaker, in district No. 13, was dry in the Beaver sand; the Beaver Petroleum Co.'s No. 9 T. C. Morrow, district No. 5, made 8 bbls. from the Beaver sand.

The Yolondo Oil Co.'s No. 1 T. Colline in district No. 21, Floyd County, is making approximately 500,000 feet of gas. In Elliott County, the test made by Hupp, Duff and others on the J. C. Hunter farm made 4 bbls. at 1,300 feet.

### THE RIGHT PLACE

The success of a Classified Advertisement depends on the medium chosen to present your wants to the interested readers.

In using The Oil and Gas Journal for your advertising purposes you will be taking the best means possible to place your wants before the real men of the industry.

It has a wide circulation going to all the oil fields, refineries, pipe line stations, gasoline plants, supply houses, and business offices. It thoroughly covers the industry.

Mail your advertisement today so that it will appear in next Thursday's issue.

### TO HONOR PIONEER

E. B. Pickett, Sr., pioneer oil operator in the South Liberty Field, Liberty County, Texas, will be guest of honor at a banquet being arranged by the Chamber of Commerce of Liberty which will be held in Liberty, April 7. Mr. Pickett is given credit for the discovery of oil in Liberty County.

# BANKRUPT SALE AT AUCTION

## SWANSON OIL CORPORATION, Bankrupt

Pursuant to an order by the Hon. D. H. Gregg, Referee in Bankruptcy, the Trustee will on,

THURSDAY, APRIL 9TH, 1925, SELL

at the plant, corner of Washington and Cherry Streets the following assets:

Sale includes 11 bulk stations located as follows:

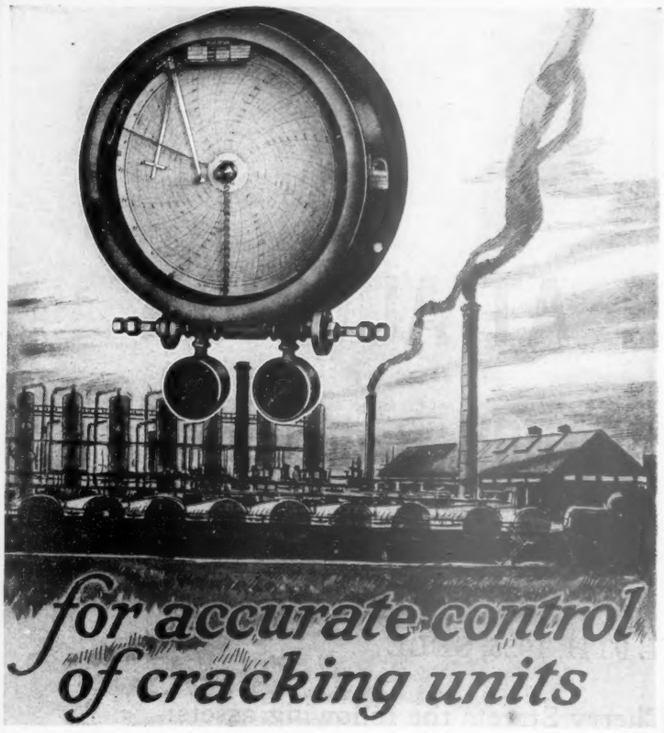
Henry, Princeton, El Paso, Mendota, Fairbury, Canton, Bradford, Washburn, Galesburg and Peoria, Illinois. All located within easy reach of the main plant and all in the Central part of Illinois.

7 Drive in Stations located as follows:

Henry, DePue, Canton, Bradford, Kewanee, Galesburg and Peoria, Illinois.

Fleet of 38 Motor trucks including 1 Cadillac Sedan, 1 Packard Speedster, etc.; truck equipment appraised at $14,250.00. Sale includes warehouses at various stations, heavy bulk storage equipment, all Gasoline, Oils, Greases, Kerosene, etc. Book accounts, Office equipment, all complete for the actual functioning of the business which is now in operation. Total value appraised at $125,000.00. For further information or inspection of the property, etc., call or write

HARRY A. FRANKEL, Trustee in Bankruptcy,
Swanson Oil Corp.
314 Central National Bank Bldg.,
Peoria, Illinois

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Foxboro Temperature Controllers can be adapted to any type of equipment. The bulb of one Foxboro Controller installed on a dephlegmator tower of the Marland Refining Co., Ponca City, is located at the top of the tower—seventy feet above the instrument.

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FOXBORO
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THE COMPASS OF INDUSTRY

## KANSAS FIELDS

(Continued from Page 44)

Skelly Oil Co. and Emerald Oil Co. have a rig on the ground for No. 1 Warner, SW cor., Section 10-23-9, Greenwood County. The Phillips Petroleum Co. has a rig up for No. 2, C NE SW SW, Section 15-23-9 and the Skelly Oil Co. a rig on the ground for No. 3 Teeter, C SW NW NW, Section 15-23-9.

The Tidal Oil Co. completed a 25-bbl. well in No. 5 South, C SW SE SW, Section 22-22-11, in sand at 1,949-63 feet. It was shot with 60 quarts. The National Refining Co.'s No. 8 Wick, C NE NW NE, Section 27-22-11, was shot with 120 quarts at 1,927-76 feet and started at 20 bbls.

The Skelly Oil Co. and Tidal Oil Co.'s No. 14 Wick, C NW NW NW, Section 27-22-11, was drilling below 1,400 feet and No. 15, C NW NE NW, Section 27, drilling below 1,000 feet. The Phillips Petroleum Co.'s No. 8, C SW NE SE, Section 28-22-11, was spudding in; Empire Gas & Fuel Co.'s No. 1, C SW SW NE, Section 32-22-11, drilling below 400 feet. The York State Oil Co.'s No. 12, C NE NE SW, Section 32-22-11, rigging up; No. 13, C NW NE SE, Section 32, drilling below 500 feet; No. 15, NE SE SW, Section 32, a rig; No. 1-C, C SE SE NW, Section 32, drilling below 975 feet. Phillips Petroleum Co.'s No. 4, SE cor. NE SW, Section 33, drilling at 1,275 feet.

The Theta Oil Co. and Kansas Oil Co.'s No. 1, SE cor. SW NE, Section 8-22-10, was dry and abandoned at 2,435 feet. Pryor & Lockhart's No. 3, CNL NE SE, Section 13-22-10, had sand at 2,097-2,141 feet. It was shot with 120 quarts and made 397 bbls. the first 24 hours on the swab. The Theta Oil Co.'s No. 9 Browning, C NW NW NE, Section 17-22-10 was a 100-bbl. well after a shot of 40 quarts in sand at 2,259-87 feet. R. G. Gillespie's No. 8 Browning, C SW SE NE, Section 19-22-10 swabbed 700 bbls. a day from sand at 2,291-2,341 feet. It had not been shot. The Sinclair Oil & Gas Co. completed a 300-bbl. well in No. 9 Browning, C SE NE SE, Section 19-22-10 in sand at 2,267-2,340 feet, without a shot. The oil in all these completions was above 41 gravity. The Theta Oil Co. was drilling at 650 feet in No. 2, C SE SE SW, Section 8-22-10; McGinnis and others, drilling at 1,300 feet in No. 2, NE cor. SW NE, Section 13-22-10; Syndicate Oil No. 2 drilling at 700 feet; Skelly Oil Co.'s No. 2 Kipfer, C NE NE NW, Section 13-22-10, drilling below 1,375 feet; Sinclair Oil & Gas Co.'s No. 12, C SE SE SE, Section 19-22-10, a rig; C. W. Titus' No. 1 Prather, C NW NW NW, Section 19-22-10, a rig; Phillips Petroleum Co.'s No. 1, SW cor. SE SE, Section 30-22-10, drilling at 1,445 feet; Titus & Norris' No. 2 Prather, C SE NE NE, Section 30-22-10, a rig.

Beverly and others swabbed 300 bbls. a day from No. 1-A Hartley, C SW SW NE, Section 2-23-9, after a shot of 115 quarts in sand at 2,356-95 feet. The same operators had a rig up for No. 3-A Hartley, C NE SW NE, Section 2-23-9 and for No. 1-B, C SE NW NE, Section 2-23-9, and were drilling at 1,450 feet in No. 1-C Green, C SE NE NW, Section 2. Murphy and others were drilling at 970 feet in No. 1 C NE SW SW, Section 2-23-9; Skelly Oil Co. drilling at 1,530 feet in No. 1 Hartley, C SE SE NW, Section 2-23-9; Transcontinental Oil Co. drilling at 930 feet in No. 5 Nuttle, C N half S half, Section 2-23-9; at 1,740 feet in No. 6, C NE NW SE, and at 960 feet in No. 7, C NW SE SW of Section 2. The Phillips Co. has a rig up for No. 16, C SE NW NW, Section 32-23-10.

Rigs are up or machines in for the following tests in Greenwood County: Chambers and others' No. 1, NW cor. SW, Section 10-24-13; Superior Oil Co.'s No. 1 Mason, SE cor. NE, Section 14-25-13; Davis & Lassen's No. 1 Parke, NE cor. NW NE, Section 23-25-13; McCann & Johnson's No. 1, NW cor. NE NE, Section 23-25-13; McMahon and others' No. 1 Houghton, SE cor. SW SE, Section 29-21-12; Swartz and others' No. 2 Jones, SW cor. SE SW SE, Section 31-21-12; Landon and others' No. 1 NW cor. SW SW, Section 32-21-12, and No. 1, NW cor. SE, Section 32-21-12. Kelly and others' No. 1, SW cor. NW NW, Section 33-21-12; Mid Kansas Oil Co.'s No. 24, C SE SW, Section 31-23-10, and drilling has been started on the following: The Mid Kansas Oil & Gas Co.'s Nos. 20 Allen, C NW NE SE, Section 23-23-10, below 1,000 feet and No. 21, C SW SE NE, Section 23, below 600 feet; Mission Oil Co.'s No. 47, CNL S half N half SW, Section 28-23-10, 300 feet and No. 48, NE cor. NW NE SE, Section 29, 800 feet; Phillips Petroleum Co.'s No. 7, C NE NW NW, Section 32-23-10, at 800 feet.

The Great Southern Oil Co.'s No. 4, CWL NE SW, Section 32-23-10 was good for 80 bbls. after a 160-quart shot at 2,293-2,333 feet. The Phillips Petroleum Co.'s No. 17 Lewis, C NE SW NW, Section 32-23-10, started at 130 bbls. after a shot at 2,254-2,329 feet. The same company's No. 19, Lewis, C NW SE NW, Section 32-23-10, is good for 120 bbls. after a 170-quart shot at 2,235-2,300 feet.

### Marion and Harvey

Garden and the White Eagle Oil & Refining Co. are drilling at 800 feet in No. 1 Warner, SW cor., Section 9-21-4, Marion County.

Connell & Garden have a rig on the ground for No. 1, C SE SE NW, Section 26-24-2, Harvey.

### Work in Butler County

The Vickers Petroleum Co. has spudded in and shut down its No. 1, SE cor. SW NE, Section 12-24-3, Butler County, and is drilling below 1,130 feet in a test, NW cor. Section 2-25-3. The Roxana Petroleum Corp. was having boiler trouble at No. 1, C NE NW NE, Section 8-25-3, with the hole 525 feet in depth.

Connell and others' No. 1 King, C NE NW SW, Section 17-24-4, got sand at 2,544-46 feet, and the well made 355 bbls. the first 24 hours with about 10 per cent of water. The oil is above 39 gravity. The same operators' No. 2 King C NW NW SW, Section 17, was spudding and a rig was on the ground for No. 3 C SE NW SW. The Phillips Petroleum Co. has started drilling No. 1 King, C NW NE SW, Section 17-24-4. Vickers and others have started drilling No. 1 King, C NW NE SW, Section 17. The Texas Co. has a rig on the ground for No. 2 King, C SW SW NW, Section 17. P. G. Reynolds has a rig up for No. 1 C NW NE SE, Section 18, and Slater & Murphy a rig up for No. 2 Maxwell, CWL SE, Section 31-24-4.

The Ohio Fuel Co. and Crawford were drilling at 500 feet in No. 1-A C W half E half SW, Section 6-25-4.

Travis and others drilled a failure in No. 1, NE cor. SW, Section 26-26-5, abandoning it at 2,775 feet.

The Imperial Drilling Co.'s No. 1 Benson, SE cor. NE NE, Section 27-24-6 was abandoned as dry at 2,812 feet.

Branson and others will drill a test, NE cor. SE NE, Section 5-27-6.

The H. Jayhawker Oil Co. which drilled an old well deeper, No. 6 SE cor. SW SW, Section 1-29-5, Fox Bush district, went to 3,248½ feet, without finding oil or gas in the lower levels and abandoned the hole.

### Cowley County

In Cowley County, McKnobb and Burt drilled a failure in No. 1 SW cor. SE, Section 8-30-2 at 3,626 feet.

Bunnell and others' have spudded in and shut down No. 1, C NE NE SW, Section 15-34-4. T. B. Slick was drilling below 500 feet in No. 1 Buzzi, C NW NW SE, Section 8-35-4.

Springstead's No. 1 NE cor. SW, Sectinon 5-25-5, showed 1,500,000 feet of gas at 1,820-25 feet and pipe was being run.

The Carter Oil Co. has started drilling No. 3 Waite, C NE NW SE, Section 19-32-3, Cowley County.

T. B. Slick's No. 1-B Carson, SW cor. SE SE, Section 19-32-3, got sand at 2,575-2,616 feet and swabbed 125 bbls. the first 18 hours. The same operator's No. 2-A Carson, SE cor. Section 19-32-3, is drilling below 400 feet.

The Marland Refining Co.'s No. 3

1—*An operator of a Barber-Greene Ditcher said that the thing would run itself. After starting it in the right direction he didn't touch the controls until it had dug more than twenty-five feet of ditch.*

*Tear this and send for the paper entitled: "The Use of Small Trenching Machines," delivered by A. G. Ford of the Western United Gas & Electric Light Co., before the 21st convention of the Illinois Gas Assn.*

*Name* .....

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4—*A close-up picture of the digging boom. This boom is raised by a power hoist, which is operated by the power unit of the ditcher. It is lowered by gravity.*

5—*Showing a Barber-Greene on a gas main job. It replaced a gang of 50 men, digging 700 feet of ditch in 7 hours.*

2—*This shows a Barber-Greene Ditcher digging a storm sewer. Note how close to the curb it is required to operate.*

3—*Digging at the rate of three feet a minute, the Barber-Greene leaves a trail of cleanly cut ditch behind it.*

# Cutting the Costs of Pick and Shovel Digging 480%

**Some interesting cost figures that show why Barber-Greene Ditchers are sweeping pick and shovel digging labor into discard came to light on the J. C. Connor job for the new 141 mile pipe line between Kansas City, Missouri and Eureka, Kansas.**

**Most of the digging was through heavily frosted ground and the roughest and toughest stretches from a digging standpoint were turned over to the Barber-Greene. These stretches lay through railroad yards, factory districts and similar places where only hand labor has ever been able to work before.**

**The advantages of the Barber-Greene vertical digging boom and the compact strength which it provides were amply demonstrated by the fact that the Barber-Greene lowered hand labor costs 480%.**

**Compare the Barber-Greene's .0276 cents on this job per lineal foot with the .1335 cents established by hand labor.**

**In addition J. C. Connor reports that on 28 miles of digging he has spent but approximately $100 for repairs. This merely furnishes another example of the ruggedness that characterizes the "diggendest ditcher."**

**Reports from all over the country on Barber-Greene ditching, in all kinds of soil, supplement the results on this job—for both the Barber-Greene Pipe Line and regular models.**

**Cutting Mains and Services is a collection of Barber-Greene jobs that shows how the Barber-Greene operates under even the most adverse conditions—and the exceptionally low costs that it shows.**

**Send for a copy—it's free to those interested.**

**BARBER-GREENE COMPANY—*Representatives in 50 cities*—600 West Park Avenue, Aurora, Ill.**

**BARBER GREENE**

**Portable Belt Conveyors Self Feeding Bucket Loaders**

**Coal Loaders . . . . . Automatic Ditch Diggers . . . Coal Feeders**

# Don't Rubber

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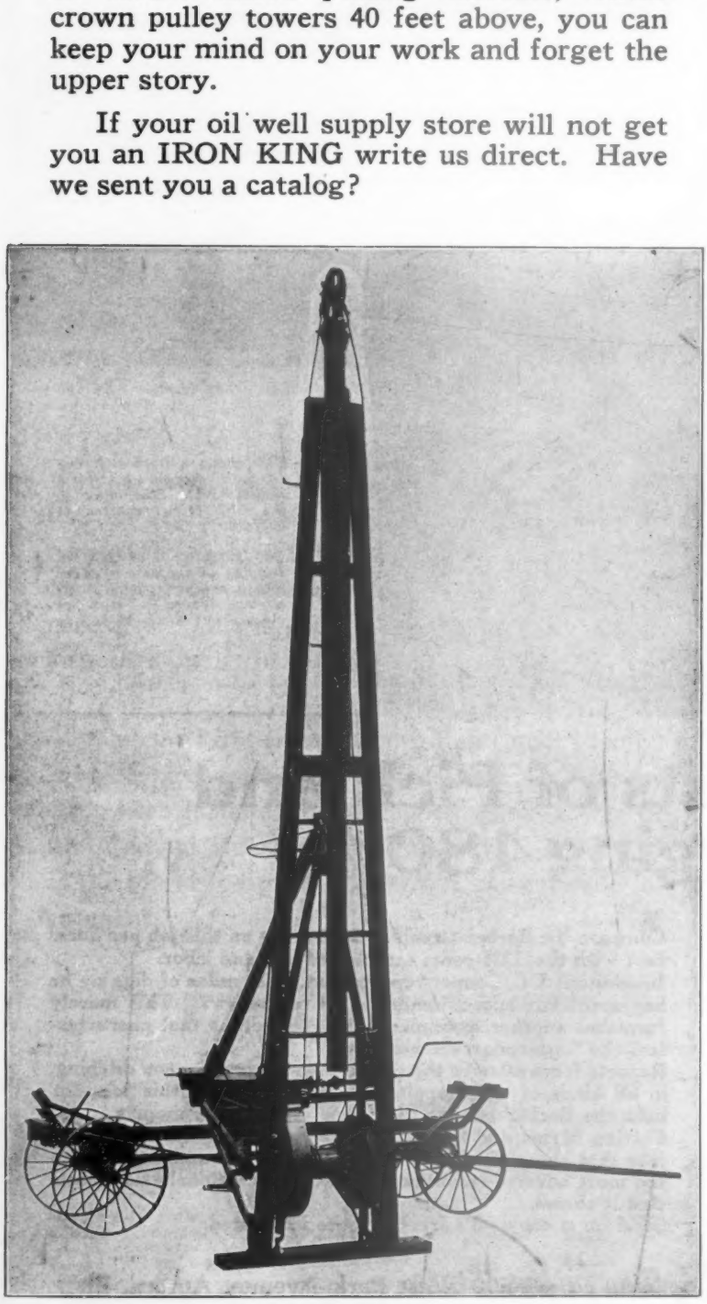

**The Iron King Manufacturing Co.**
**Bradner, Ohio**

*Say you saw it in The Oil and Gas Journal*


Wood, C SE SE NE, Section 9-33-3, swabbed 50 bbls. of oil and 50 bbls. of water from sand at 3,315-20 feet and was drilling ahead. The same company has a rig up for No. 5 Wright, C SW NE NW, Section 10-33-3. Its No. 2 Bowers, C NW NE SW, Section 10-33-3, got sand at 2,558-85 feet and swabbed 60 bbls. of oil in 19 hours and some water. Number 5 Bowers, C NW SE NW, Section 17-33-3, found 20,000,000 feet of gas at 3,168-76 feet which was mudded off. Waite Phillips is drilling below 500 feet in No. 6, C NE NW NW Section 20-33-3 and No. 6, C SW NE SE, Section 20-33-3, and has a 210-bbl. well in No. 11 Wortman, C NW SE NW, Section 20-33-3, in sand at 3,239-64 feet.

**Wildcats in Other Counties**

In Sumner County the Phillips Petroleum Co. was fishing for bit at 240 feet in No. 1, C NW NW NW, Section 17-34-1. The Mid-Continent Petroleum Corp. has started drilling No. 1 Riner, C NW NW NW, Section 36-30-2w. The Wilcox Oil & Gas Co. has a rig on the ground for No. 1, C NW NW SW, Section 5-32-2w.

In Sedgwick County Leggett and others are drilling below 300 feet in No. 1, C NE NE NW, Section 11-26-1e.

## N. LOUISIANA-ARKANSAS

(Continued from Page 39)

15-16; Sure Oil Co. made two locations in Section 5-16-15 for Nos. 1 and 2 Hill; also made location for No. 2 Snyder, Section 34-15-15.

Sutton and others are waiting on water at 1,500 feet in No. 8 Hughes, Section 28-15-16; swabbing to test No. 9 Hughes, same section, with hole full of salt water at 2,534 feet; Swartz and others drilling at 2,155 feet in No. 2 Burton, Section 30-15-17.

**The Texas Co.**

The Texas Co. tested dry at 2,280 feet No. 2 Neely, Section 27-15-16; derrick up for No. 3 Neely, and rigging up for No. 4 Neely, same section; set 10-inch casing at 50 feet in No. 7 Reynolds, Section 23-15-17, and drilling at 1,550 feet; arranging to test 9 feet of sand at 2,257 feet in No. 5 Solmson, Section 32-15-16; waiting on standard rig with 15 feet of sand in the hole at 2,255 feet in No. 6 Solmson, Section 32-15-16; waiting on standard rig with 15 feet of sand in the hole at 2,259 feet in No. 7 Solmson, same section, and derrick up for No. 8 Solmson, same section.

Sid Umsted is waiting orders in shale at 2,535 feet in No. 1 Jones, Section 26-14-17; Unity Petroleum Co. whipstocking casing at 1,886 feet in No. 3 Berry, Section 35-15-15; Whittiken and others drilling at 700 feet in No. 6 Anderson, Section 23-15-17; drilling at 2,115 feet in No. 3 Green, same section; O. F. Whittaker, rigging up No. 1 Berg, Section 27-15-17; Winfield and others set 10-inch casing at 460 feet in No. 1 Umsted, Section 4-16-15.

Woodley Petroleum Co. is drilling at 1,400 feet in No. 3 Umsted, Section 4-16-15; set 10-inch casing at 493 feet in No. 4 Umsted, same section.

**Cotton Valley**

Another cut in the price of Cotton Valley crude brings the present quotation down to $1 but will probably have little or no effect on drilling activity in this district as most of the leases are held by old line companies who are pursuing a steady program of development.

The Alabama Petroleum Co. completed its test on the Coffee lease, Section 19-21-9, and is arranging to put it on the beam. The well is on the extreme eastern edge and will probably make only a small producer. Pardee B-3, Section 24-21-10, set 6⅝-inch casing at 2,465 feet.

Crusader Oil Producing Co. has three wells nearly completed on the Hope Estate land, Section 25-21-10; M. J. Derryberry completed Smith A-1, Section 29-21-10, and arranging to pump at 2,579 feet; Fortuna Oil Co., drilling in shale at 1,000 feet in No. 1 R. R. Cox, Section 15-21-10, and Humble Oil & Refining Co. has three more wells arranging to pump on the Bodcau lease in sections 13 and 28-21-10; No. 3 Gray, Section 26-21-10, arranging to pump; No. 4 set 6-inch casing at 2,480 feet and No. 5 drilling at 1,300 feet, with locations made for No. 6 and No. 7, all in Section 26-21-10.

Louisiana Oil Refining Corp. is drilling at 1,850 feet in No. 2 Bodcau, Section 13-21-10, and at 2,370 feet in No. 3 Crichton, Section 21-21-10. Ohio Oil Co. is drilling in with cable tools at 2,490 feet in No. 18 Bodcau, Section 13-21-10, set 6-inch casing at 2,525 feet in No. 20, Section 15-21-10, arranging to pump No. 22, Section 27-21-10, and Nos. 24 and 25, Section 28-21-10, with five more wells starting on the Bodcau lease, Sections 15-17 and 28-21-10 and seven rigs running on the Gray lease, Section 26-21-10.

Woodley Petroleum Co. set 6⅝-inch casing at 2,504 feet in No. 1 Gray, Section 26-21-10.

**Springhill District**

In the Springhill district, north of Cotton Valley, the Fortuna Oil Co. has derrick up for No. 1 Branton, Section 16-22-9; Simms Oil Co. is drilling at 680 feet in No. 1 Burrell, Section 34-23-10, and Standard Oil Co. drilling at 2,400 feet in No. 1 Maynor, Section 34-23-10.

**Bienville Parish**

The Roxana Petroleum Corp. is drilling at 3,370 feet in No. 1 Bryan, Section 30-17-6, a deep test in wildcat territory, 8 miles south of Gibsland.

**Bossier Parish**

Several tests have been started in south Bossier, between 6 and 8 miles northeast of Shreveport. Boger and others are down 80 feet in No. 2 Atkinson, Section 3-18-12 and have made a location for No. 1 Fineef, Section 8-18-12. Corbet and others tested dry at 1,136 feet in No. 1 Atkinson, Section 3-18-12, and are waiting orders.

**Bellevue Field**

Osborne and others have a show of oil and salt water at 465 feet in No. 2 McDade, Section 32-19-11, and G. W. Wetherbee is drilling at 270 feet in No. 6 Bliss & Wetherbee, Section 23-19-11.

**Caddo Parish**

In the Pine Island district, Dixie Oil Co. is down 3,582 feet in a deep test on the Noel lease, Section 24-21-15, and set 6-inch at 3,575 feet in No. 53 Robertshaw Section 13-21-15. No. 65 Robertshaw, Section 13-21-15, set 4½-inch casing at 2,248 feet. Fortuna Oil Co. is also drilling a deep test in the Pine Island district, No. 10 Robertshaw, Section 23-21-15, setting 4½-inch casing at 3,550 feet. Tholl Oil Co. is drilling at 850 feet in No. 1 H. I. & B. Co., Section 14-21-15.

East of Oil City, Fortuna Oil Co. is bailing to test No. 14 Doan-Thigpen, Section 5-20-15, at 2,204 feet, and drilling at 1,420 feet in No. 2 Levee Board, Section 8-20-15.

In the old Hosston district, Dixie Oil Co. is rigging up to drill No. 1 Jolley, Section 27-22-15.

Fortuna Oil Co. is drilling at 1,780 feet in No. 1 Mitchell, Section 17-18-16, 4 miles west of Cross Lake.

North of Cross Lake and 9 miles north of Shreveport, Woodley & Collins are drilling at 200 feet in No. 1 McVea, Section 23-19-14.

In the old Caddo Field, west of Oil City, W. M. Gross and others have two wells nearly completed on the H. Rives lease, Section 5-20-16; Gulf Refining Co. set 4½-inch casing at 2,557 feet in No. 220 Ferry Lake, Section 14-20-16 and is drilling at 2,050 feet in No. 222, Section 6-20-16, and the Texas Co. set 6½-inch casing at 2,250 feet in No. 10 Russell, Section 3-20-16.

The Proven Production Co. tested at 2,464 feet in No. 1 Argus, Section 6-16-16, getting a small show of oil with a little salt water. The test is 4 miles north of Bethany, near the Texas line.

Ohio Oil Co. is drilling at 1,550 feet in No. 16 E. K. Smith, Section 7-21-14, in the Pine Island district.

In the Waskom district, A. C. Scott and others set 6-inch casing at 1,834 feet in No. 1 Stringfellow, Section 19-17-16, and Waterman Drilling & Development Co. set 6-inch casing at 1,862 feet in No. 1 Hunting Club, Section 17-17-16.

Standard Oil Co. is drilling in gumbo at 2,375 feet in No. 170 Stiles, Section 27-21-16.

The Texas Co. is rigging up to drill

No. 1 Hutchinson in Section 15-15-12, in the south end of the Elm Grove district.

**Caldwell Parish**

Culver and others are drilling at 3,325 feet in No. 1 fee, Section 21-14-4, 5 miles north of Columbia.

**Claiborne Parish**

The Triangle Drilling Co. is drilling at 1,100 feet in No. 1 J. H. Cox, Section 7-19-5, 12 miles southeast of Homer.

Woodley & Collins are drilling at 800 feet in No. 1 Oakes, Section 8-20-5, 9 miles southeast of Homer.

**Grant Parish**

Grant Parish Petroleum Co. is drilling at 725 feet in No. 1 Selmer Lumber Co., Section 14-7-1w.

**La Salle Parish**

Urania Petroleum Co.'s No. 6 Urania in Section 18-20-2e, came in March 23 and flowed for one hour at the rate of 600 bbls. a day, then sanded up and is still dead. Storage tanks are being set up and after pulling liner and setting screen an attempt will be made to bail the well back in. The oil was found in 4 feet of sand at 1,511 feet and tests 20 gravity.

Gulf Refining Co. is drilling at 2,525 feet in Urania A-1, Section 22-11-2e.

**Morehouse Parish**

Natural Gas Producing Co. is rigging up to drill No. 16 Crossett in Section 15-22-5.

**Natchitoches Parish**

R. O. Roy is drilling at 1,020 feet in No. 1 C. M. Durr, Section 27-10-10, about 10 miles south of the Bull Bayou district.

**Ouachita Parish**

Dickson & Frue are drilling at 2,800 feet in No. 1 Goodwin, Section 24-18-2e, and the Southern Carbon Co. set 6-inch casing at 2,176 feet in No. 46 fee, Section 11-19-4.

**Sabine Parish**

L. M. Emlet is drilling at 1,500 feet in No. 4 Bowman Lumber Co., Section 8-7-12, and the Flo-La Oil Co. is drilling at 2,385 feet in No. 1 E. A. Walker, Section 6-5-12, in the south end of the parish.

**Union Parish**

Roxana Petroleum Corp. is drilling at 65 feet in No. 1 Henderson-Bennett, Section 13-22-3w, 15 miles northwest of Farmerville.

The Texas Co. has started two tests on the western edge of the Monroe gas field, No. 1 Jimmy, Section 9-20-4e, drilling at 450 feet, and No. 3 Grayling, Section 21-20-4, a location, and the Thrift Co. is drilling at 650 feet in No. 1 Smith Russell, Section 12-20-4, same locality.

**Nevada County**

Ames and others have two more wells arranging to pump No. 3 and No. 4 Womack in Section 10-14-21. In the same section, Greason and others are drilling at 120 feet in No. 2 McKinney, and have derrick up for No. 1 Walters in Section 2-14-21.

Smitherman-McDonald, who tested dry at 2,910 feet in No. 3 Womack, Section 10-14-21, are arranging to plug back and make a shallow test.

Zing and others set 6-inch casing at 1,140 feet in No. 2 Womack, Section 10-14-21.

**Columbia County**

The Magnolia Development Co. tested dry at 2,257 feet in No. 1 Phil Lindsey, Section 30-18-19, and is drilling at 2,440 feet.

Transcontinental Oil Co. is rigging up to drill No. 1 McClurkin, Section 6-16-19, and Virgil Heath, trustee, is drilling at 2,640 feet in No. 1 Williams, Section 1-19-21.

**Hempstead County**

Grassy Lake Oil Association it temporarily closed down at 2,100 feet in No. 1 Gun Club, Section 27-12-27, and J. G. Wooten drilling in gumbo at 1,075 feet in No. 1 Clarke, Section 22-11-24.

**Lafayette County**

Humble Oil & Refining Co. is drilling at 1,100 feet in No. 1 Bodcau-Kitchens, Section 23-15-23, 9 miles northeast of Lewisville, and Kansas Petroleum Co. tested dry again at 1,930 feet in No. 2 Red River Land Co., Section 3-20-24, and is drilling at 2,000 feet. This test is 2 miles south of Lewisville.

**Little River County**

Gaines and others are drilling at 3,900 feet in No. 1 Goodrun Timber Co., Section 15-13-29.

## FUEL OIL EFFICIENCY WILL CHECK CONVERSION

(Continued from Page 22)

little chance of fuel oil prices being able to resist the factors relating to coal competition.

One of the large oil companies has instructed its salesmen not to undertake to advise conversion of industrial plants from coal to oil unless it can be shown that fuel oil would be cheaper, including in the cost that of making the change in equipment. With fuel oil at its present price as against coal this automatically removes all classes as possibilities except the socalled preferential users. With the low prices that obtained for fuel oil over the last few years and with the high prices for which coal was selling, it was possible to make many industrial conversions on the basis that savings effected would pay for the cost of installthe price. Oil companies state that at present there are enough of these preferential users to take all the fuel oil available for industrial purposes at present prices; in other words, the condition of supply in the North Atlantic Coast district is only sufficient to furnish such users.

It will be noted that the development of the use of fuel oil for household burning which is for superior service and is not essentially competitive with coal and the extension of the preferential use of fuel oil in industries, would place fuel oil as a product in its proper economic sphere. It would mean the establishment of a value for fuel oil in keeping with its value as charging stock for cracked gasoline. Ultimate elimination of the burning of fuel oil under boilers by plants which could just as effectively operate with coal would mean that the price of fuel oil would cease to be dictated by the price of coal.

The recent strong tendency of fuel oil prices has made it possible to see the way this change in status would work out but there is some doubt as to whether the time has come for the practical working out of the theory. Should there develop any wholesale conversion of oil burning plants not of the preferential class, back to coal, potential supply is such that with this oil thrown back there would necessarily be an easing off in the price of fuel oil lation in one, two or three years depending upon the nature, size or location of the plant. The most important angle, economically, in the present fuel oil situation is that this cannot now be done, generally speaking.

To say that fuel oil will not again be in sufficient supply and at a relative price such as to make it possible again to quote it attractively as against coal for industrial plant use generally, is to disregard fuel oil history. Whenever in the past the industry appeared to be due for a fuel oil shortage prolific supply has been developed. Even at the present time in the eastern market fuel oil prices are tending to weaken. If there is an increased movement of fuel oil from the Pacific Coast or the Mid-Continent into the eastern market, this tendency will develop into an actual downward movement. Mid-Continent fuel oil has declined in the last few weeks, and eastern prices are bound to be affected unless there is a turn in the Mid-Continent situation. Any large movement of Venezuelan crude into the markets would considerably change the present fuel oil situation.

The oil companies are inclined to regard the propaganda of the coal people as especially serious as it relates to the fuel use of industrial plants. This is because they are not now particularly concerned about business that is not in the preferential class. They believe that in the event of any turn in the situation fuel oil will take care of itself in competition with coal as it has done in the past.

It is pointed out that, should fuel oil remain relatively high in price over any extended period the industry, practically for the first time since fuel oil use has grown to quantity proportions in industrial plants, buildings and homes, opportunity will be afforded to determine the extent of the preferential demand for the product.


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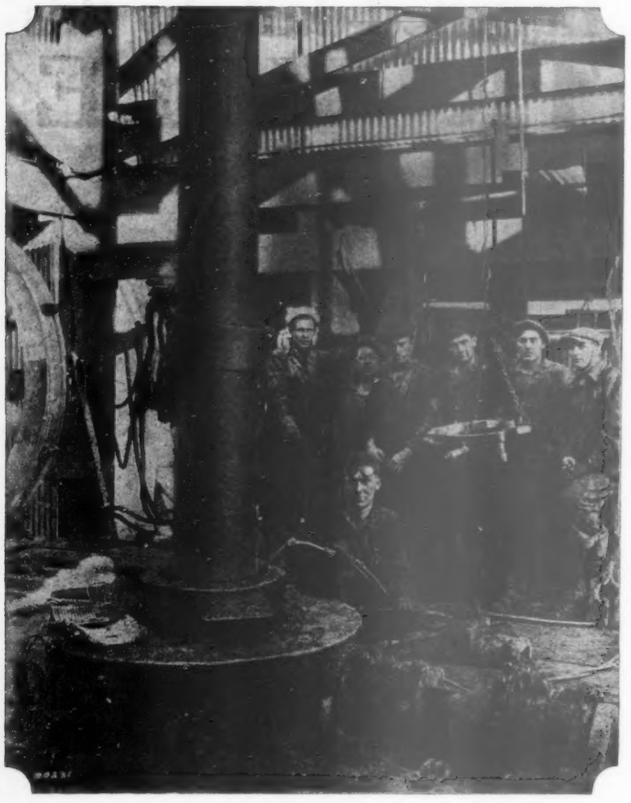

Welding shoe on bottom joint of 12½", 45lb "RX" Casing at well No. 2, Ruddick Lease of the Van Allen Oil Company, Torrance, California. This was 1,000 ft. water string and the well was drilled by Five-O Drilling Company.

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# RUSSIAN OIL LEADERS WILL COME TO THIS YEAR'S OIL EXPOSITION

"One of the most important pieces of news that we have to disseminate," says E. F. McIntyre, general manager of the International Petroleum Exposition, "is the information that we have received relative to the Aznefi Russian Oil Syndicate. This is the Soviet Government's petroleum department. They came last year at the very last moment, took two spaces for a display of photos and literature concerning the Russian oil fields.

"This year, we learn, they want four spaces and are coming with all officials to study the most modern exhibits and from among them to select the most desirable and efficient machinery, tools and supplies for the rehabilitation and modernization of the Government properties and they intimate that their purchases will run well up toward $1,000,000, all to be chosen from among the exhibits at the Petroleum Exposition."

"Responses from the 600 or more exhibitors who displayed their goods last year indicate that the 1925 Exposition will have to provide adidtional space if it is to take care of all applicants.

"With a very few exceptions all of last year's exhibitors are coming back for the Third Annual Exposition and a number of them are asking that additional space be reserved for them. But the most encouraging feature is that, already, before any literature has been sent out or any campaign for the sale of space begun, applications from 37 new exhibitors are on file.

"These manufacturers were not represented at either of the former expositions," Mr. McIntyre says. "Many of them visited the show as spectators however and, astonished at its magnitude and completeness, determined not to be left out in the future. Others have heard of the show and the desirability of making displays from their salesmen, representatives and customers. I look for no less than 100 entirely new exhibitors at the 1923 show. This will more than make up for any exhibitors who might feel that they do not care to be represented at this show next fall.

"If we have the same number of exhibitors as we had last year, everybody will be satisfied. There is no demand for a bigger show. It was big enough last year, so big that many visitors missed many features. What the present board of directors and I are striving for this year is a better show, better in every way.

"We have decided to add this year a large number of amusement features, so located as to not interfere with the regular exhibits. There has been an insistent demand for such entertainments. Many of our patrons bring their wives and children to the Exposition and in the past there has not been sufficient amusements to keep the women and children interested while the men milled around looking at and studying the various exhibits. We will remedy this.

"We plan to bring in one of the best carnival companies on the road, one with high class attractions and one quite up to the standard of the Exposition itself. There will be many amusement and entertainment concessions that will be worthy of the patronage of any one and which will form a pleasant relief from the business of studying and examining exhibits.

**Parking Provisions**

"We are working on a plan, which may be consummated in a few days by which the Exposition will acquire in the immediate neighborhood ample parking space for all the automobiles that may be driven to the grounds. We are also working on other plans by which the grounds may be considerably enlarged, our streets and avenues straightened and a better and more even distribution of the crows obtained. There was too much congestion at certain places last year. This will be done away with in 1925.

"Practically all of the newspapers in the other oil producing States which held contests for the selection of the Petroleum Princesses last year have applied for the same privelege this summer and the majority of them have outlined methods by which they hope to give these contests even greater publicity than last year and in every case to secure and send to Tulsa the most beautiful girl from that particular State.

"The parades of the past two years, although beautiful and gorgeous, will be outdone by the pageants planned for the coming fall. We have all gained by our experience of the past two seasons and we intend to profit by our increased knowledge of how to handle this feature.

"An ever-increasing number of the exhibitors of the more bulky displays are contemplating the erection of permanent buildings for their exhibits, now that we have bought the grounds from the Prairie Oil & Gas Co. and the permanence of the Exposition as an annual institution has been made certain. We know of four or five exhibitors who, this fall will erect buildings similar to that erected by the Frick-Reid Co. last year.

## CALIFORNIA RECEIPTS AND PETROLEUM IMPORTS

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the week ended March 21 totaled 972,000 bbls., a daily average of 138,857 bbls., against 419,000 bbls., a daily average of 59,857 bbls., for the week ended March 14, as follows:

| | |
|---|---|
| Atlantic Coast Ports— | |
| New York | 338,000 |
| Philadelphia | 306,000 |
| Others | 175,000 |
| Total | 819,000 |
| Daily average | 117,000 |
| Gulf Coast Ports— | |
| New Orleans and Baton Rouge | 153,000 |
| Daily average | 21,857 |
| Total Atlantic and Gulf Coast ports | 972,000 |
| Daily average | 136,857 |

**Imports of Petroleum**

Imports of crude and refined oils at the principal ports for the week ended March 21 totaled 1,368,000 bbls., a daily average of 195,428 bbls., compared with 1,646,000 bbls., a daily average of 235,143 bbls. for the week ended March 14.

| | |
|---|---|
| Atlantic Coast Ports— | |
| Baltimore | 60,000 |
| Boston | 65,000 |
| New York | 297,000 |
| Others | 219,000 |
| Total | 641,000 |
| Daily average | 91,571 |
| Gulf Coast Ports— | |
| Galveston district | 270,000 |
| New Orleans and Baton Rouge | 333,000 |
| Port Arthur and Sabine district | 67,000 |
| Tampa | 67,000 |
| Total | 737,000 |
| Daily average | 105,857 |
| All U. S. Ports— | |
| Total | 1,368,000 |
| Daily average | 195,428 |

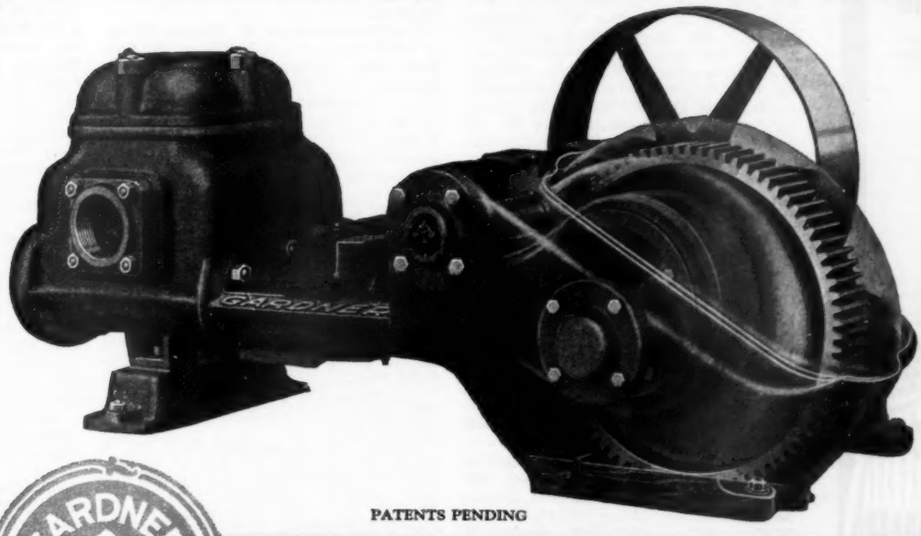
## GRANTED BUSINESS PERMITS

OKLAHOMA CITY, Okla., March 28. The Southwestern Light & Power Co. of Delaware, controlled principally by New York interests, has been admitted to do business as a corporation in Oklahoma with a capital investment of $1,550,042. The corporation operates gas and electric plants in southwest Oklahoma and the Texas Panhandle. Oklahoma City is headquarters and Earl R. Ernsberger is general manager.

Among other foreign corporations recently admitted to the State were the Blakley Oil & Gas Co. of Delaware, headquarters Okmulgee, capital investment $100,000; the Penn Valley Oil Co. of Kansas, headquarters Kansas City, capital $10,000, and the San Antonio Machine & Supply Co. of Texas, capital investment $10,000.

## W. M. EGGERS DIES

CLARION, Pa., March 30.—William M. Eggers is dead, aged 77 years. Early in life he went to Oil City where he was employed hauling oil on boats, later going into the contracting and drilling business. In 1897 he moved to Butler and from there went to Texas with his son, William, Jr.

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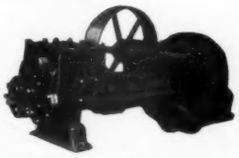

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## OKLAHOMA FIELDS

(Continued from Page 44)

County, had a 75-bbl. showing at 2,614 feet. The Barbara Oil Co. was drilling below 2,626 feet in No. 1 Field, SW cor. SE NE, Section 3-11-11. The Josey Oil Co. was drilling at 300 feet in No. 1 Smith, CWL SE SW, Section 7-11-11; Windsor Oil Co.'s No. 1 Grayson, SE cor. NW, Section 22-11-11, a rig.

The Windsor Oil Co.'s No. 2 Holmes, NW cor. SE, Section 22-11-11, made a 300-bbl. well from sand at 2,504-20 feet. The same company's No. 1 Guy, NE cor. SE SW, Section 22-11-11, was showing for 100 bbls. at 2,560 feet. Rigs are up for No. 2, NE cor. SW, Section 22, and No. 3 SE cor. NE SW, Section 22. Vincent and others are drilling at 1,500 feet in No. 1 Thomas, NW cor. SW, Section 28-11-11. Riverland Co. drilling at 2,660 feet on No. 2 Holmes, SE cor. SW NE, Section 30-11-11. L. Umburn's No. 2 Barnett, NW cor. SE, Section 35-11-11, is fishing at 2,530 feet.

Active operations in Township 12-10, Okfuskee County, include Atlantic Oil Producing Co.'s No. 2 Gray, SW SE, Section 36-12-10, 7,000,000 feet of gas at 1,710-25 feet, fishing at 1,840 feet. Same company's No. 4 Brooks, SE cor. NE SW, Section 36-12-10, rigged up. Blakley & Wedell's No. 1 Johnson, C SE SW NW, Section 25-12-10, was dry and abandoned at 3,140 feet.

Activities in Township 12-11 include Hartman and others' No. 7 Bennett, NW cor. SE SE SE, Section 22-12-11, drilling below 2,750 feet; Josey Oil Co.'s No. 5 McCoy, SW cor. NW SW, Section 33, drilling at 2,923 feet; No. 6, SW cor. NW, Section 33, drilling at 2,460 feet, and No. 7, NW cor. SW NW, Section 33, drilling at 1,000 feet. No. 8, NE cor. NW SW, drilling at 1,425 feet. No. 4 is shut down at 2,947 feet and the Josey Oil Co.'s No. 1 Fields, Section 32, is shut down at 3,015 feet. The Josey Oil Co. had tools in for No. 2 Fields, SW cor. NW NW, Section 33 and had a rig on the ground for No. 3 Fields, SE cor. NW NW, same section. The Independent Oil & Gas Co. had started drilling No. 2 Jacobs, NE cor. SE SW, Section 36-12-11. The Independent Oil & Gas Co. and Charles L. McMahon's No. 1 Carolina, NE cor. SW SW, Section 33, was drilling at 3,010 feet.

Five operations are at work in Township 9-10, Hughes County. The Independent Oil & Gas Co. was ready to start up No. 1 Harjo, SE cor. NE, Section 18-9-10; the Superior Oil Co. was below 1,900 feet in No. 1 Buck, SW cor. SE, Section 20; the Fuhrman Petroleum Co. had a 15,000,000 gas production in No. 1 Buck, NW cor. SW SW, Section 21, and it was completed as a gas well. E. P. Hawkins and others' No. 1 Dunzy, NE cor. NW, Section 23, was fishing at 2,770 feet; Kingwood Oil Co.'s No. 1 McCalvert, NW cor. Section 29, drilling at 3,478 feet.

In Township 9-11, Hughes County, the Tidal-Osage Oil Co.'s No. 4 Baker, NW cor. SW, Section 3, was drilling at 1,015 feet; No. 5, SW cor., drilling a 1,790 feet; No. 1 Moore, SW cor. NW, Section 3, rigged up; No. 1-A Baker, SE cor. SW SE, Section 4, drilling below 2,500 feet; No. 5, NW cor. SW SE, Section 4, sand at 2,964-85 feet, 65 bbls.; No. 6, SW cor. SE, a rig. No. 7, NE cor. NW SE, Section 4, drilling below 900 feet; No. 3 Coachman, SE cor. SW SW, Section 4, a rig; No. 1 Harjo, SE cor. NE, Section 4, drilling below 400 feet. The Magnolia Petroleum Co.'s No. 1 Baker, NW cor. SE SW, Section 4, was fishing at 2,750 feet; No. 2, SW cor. SE SW, is a rig; No. 4 Byrd, SE cor., drilling at 790 feet; Mid-Kansas Oil & Gas Co.'s No. 3 Byrd, NW cor. NE SE, Section 4, drilling at 1,400 feet; No. 4, NE cor. SE, drilling at 850 feet; No. 5 Bruner, NE cor. Section 9 and No. 1 Bruner, NE cor. SE, Section 9, both rigged up; Prairie Oil & Gas Co.'s No. 1 Grayson, SW cor. Section 19, drilling below 1,900 feet. Waite Phillips Co.'s No. 1 Barnett, SE cor. NE NW, Section 23, drilling below 1,675 feet.

In Township 13-8, Okfuskee County, Bingham & Smith's No. 1 Harjo, SE cor. Section 16, was drilling below 1,100 feet.

Four activities are slated in Township 11-9, Okfuskee County, Wilcox Oil & Gas Co.'s No. 1 Simmer, SW cor. SE, Section 19, drilling below 1,200 feet; Prairie Oil & Gas Co.'s No. 1 Yarhola, NW cor. SE, Section 25, drilling below 2,710 feet; Shaffer Oil & Refining Co.'s No. 1 Foster, SW cor. NE, Section 25, drilling at 3,147 feet and the Olean Petroleum Co.'s No. 2 Wind, NW cor. SW SE, Section 36, underreaming at 2,970 feet.

The Western States Oil Co. was fishing at 3,555 feet in No. 1 Unalotted, SE cor. NW NE, Section 14-12-8, Okfuskee County.

### Cromwell Operations

The Southwestern Petroleum Co.'s No. 6 Wisner, C NW SE NE, Section 4-10-8, got the top of the sand at 3,417 feet and was pulling the big pipe.

The Gypsy Oil Co.'s No. 2 Sampson, SE cor. Section 5-10-8, had gas in the top of the sand at 3,417 feet.

Prairie Oil & Gas Co.'s No. 12 Buckner, C NW NE SE, Section 8-10-8, had the top of the sand at 3,430 feet, total depth 3,452 feet, and had 900 feet of oil in the hole. The same company's No. 16, C NW SE SE, Section 8, had 300 feet of oil in the hole in sand at 3,484-3,550 feet.

The Carter Oil Co.'s No. 4 Hill, C SW NW NE, Section 9-10-8, was cleaning out at 3,555 feet.

Shaffer Oil & Refining Co.'s No. 1 Little, SW cor. NW SE, Section 10-10-8, had a hole full of fluid at 4,138 feet, top of the sand at 4,118 feet.

Transcontinental Oil Co.'s No. 1 Bunner, C NW NE NW, Section 25-10-8, was a hole full of water at 3,510 feet, top of the sand at 3,500 feet.

In the Yeager district, Hughes County, where the Dixie Oil Co. got a 1,400-bbl. well at 3,200-03 feet in No. 1 Knight, C NE NW NE, Section 6-7-8, the same company was drilling below 4,000 feet in No. 1 Foster, C NE NE NE, Section 5, and had a rig up for No. 2 Knight, SE cor. NW NE, Section ½; the Champlin Refining Co., a rig for No. 1 Davis, C NW NE NE, Section 6; Homa Okla Oil Co., a rig up for No. 1 Davis, SW cor. NE NE, Section 6; Independent Oil & Gas Co. drilling below 1,200 feet in No. 1 Proctor, SW cor. NE, Section 11, Indian Territory Illuminating Oil Co., drilling at 300 feet in No. 1 Huffman, NE cor. SW SW, Section 13; Magnolia Petroleum Co. setting 6-inch pipe at 2,980 feet in No. 1 Manley, C NW SE NW, Section 23.

In the Wewoka Field, Seminole County, the Gardner Petroleum Co.'s No. 1 Micco, C SW SW SW, Section 30-8-8, had the top of the sand at 3,385 feet, total depth of 3,452 feet, with a show of water and the crew was fishing for pipe. The Magnolia Petroleum Co.'s No. 1 Aldridge, CEL SE SW NW, Section 32-8-8, was good for 430 bbls. from sand at 3,217-26 feet

McMillan and others have a rig on the ground for a test on the Harjo farm, C NW NE NE, Section 25-8-9.

The Dixie Oil Co.'s No. 1 Harjo, SW cor. NE NW SW, Section 26-5-8, is drilling below 2,010 feet.

The Homa Oil Oil Co.'s No. 1 Shields, NW cor. SW NE, Section 33-5-8, was drilling at 2,800 feet.

Garland and others' No. 1 Reed, C NW NE NW, Section 6-6-8, was drilling by tools at 1,430 feet.

The Texas Co. abandoned the location for No. 1 McNabb, SE cor. SW, Section 3-11-6, Seminole County. The Amerada Petroleum Corp.'s No. 1 Yarhola, NW cor. NE, Section 12-11-7, was drilling below 1,800 feet. The Central National Oil Co.'s No. 1 Harjo, NE cor. SW NE, Section 14-11-7, drilling below 1,350 feet; Wrightsman and others' No. 1 Burgess, C SE SW NW, Section 36-11-7, underreaming 6-inch casing at 3,965 feet; Wilcox Oil & Gas Co.'s No. 1 Payne, C NE NE NW, Section 32-11-7, top of sand at 3,270 feet with a showing of dark oil. Shut down for a liner.

H. N. Taylor's test on the Curds farm, NW cor. SE, Section 35-9-6, Hughes County, was abandoned as dry at 3,961 feet.

The Independent Oil & Gas Co. was cleaning out at 4,030 feet in No. 1 Williams, SE cor. NW SW, Section 13-9-7, Hughes County.

Killeblew and others were shut down at 3,784 feet in No. 1 Key, C NW SW NW, Section 14-10-7, Hughes County, after drilling through sand at 3,719-42, feet which contained nothing in the way of production. Wrightsman and others were underreaming at 2,995 feet in No. 1 Harjo, SE cor. NW, Section 31-10-7.

In Township 8-7, Seminole County, the Magnolia Petroleum Co. was drilling below 1,400 feet in No. 1 McElever, SW cor. NE, Section 12; same company's No. 1 Carolina, NE cor. SE, Section 15, depth 2,166 feet, will finish with standard tools; Magnolia Petroleum Co.'s No. 1 Yarnack, C SE SW SW, Section 25, underreaming to 3,300 feet; same company's No. 1 Jones, NE cor. SE Section 35, fishing for bit at 3,320 feet. W. R. Ramsey's No. 2 Cumseh, C NE NE NE, Section 36-8-7, rig burned down, total depth 3,130 feet.

The Transcontinental Oil Co. was underreaming to 2,840 feet in No. 1 Davis, NE cor. SW, Section 22-7-7, Hughes County.

In Garfield County, Faling and others are drilling below 625 feet in No. 1, NW cor. SW NW, Section 25-23-3w.

In Beckham County, Kouri and others' No. 1 Tatty, SW cor. SE NE, Section 36-8n-22w, was abandoned at 1,073 feet.

In Alfalfa County, Henley, Faling & Armstrong's No. 1, NW cor. SE NW, Section 23-24-11w was abandoned as dry at 3,000 feet.

The Carter Oil Co.'s No. 6 Johnson, C SW SW SE, Section 33-10-9, got the top of the Gilcrease sand at 2,945 feet, pay at 3,082 to 3,086 feet and the well is making 630 bbls. a day. The Prairie Oil & Gas Co.'s No. 8-A Vincent, C NE SE SW, Section 34-10-9, got pay sand at 3,306-15 feet and water at 3,315-16 feet. It was plugged back to 3,307 feet and is pumping 75 bbls. a day. T. B. Slick's No. 6 Sands, C SE SE SE, Section 35-10-9, was good for 15,000,000 feet of gas and 60 bbls. of oil at 3,347-64 feet.

T. B. Slick's No. 8 Alexander, C NW SW NW, Section 2-9-9, was drilling at 3,325 feet with the hole full of oil.

### Results in Burbank

The Phillips Petroleum Co.'s No. 8, SE cor. NW SW NE, Section 11-27-5, Burbank Field, Osage County, which started at 1,000 bbls. a day naturally, was shot with 140 quarts in sand at 3,004-60 feet and made 600 bbls. the ensuing 24 hours. No. 8, SE cor. NE SE NE, Section 11, was drilling in sand at 2,986 feet and flowing about 10 bbls. a day. No. 12, NE cor. SE NE NE, Section 11, which filled with oil from sand at 2,968-3,010 feet, was given a 120-quart shot and made 57 bbls. the first hour and 750 bbls. the first day. No. 13, NW cor. NE, Section 11, filled 2,000 feet with oil from sand at 2,970-3,038 feet. A 180-quart shot yielded only 75 bbls. the first 24 hours. The same company's No. 9 NW cor. SW NW NE, Section 11-27-5, was good for 300 bbls. following a shot of 110 quarts at 3,004-48 feet.

Phillips Petroleum Co.'s No. 1, SW cor. Section 12-27-5, Burbank Field, got sand at 2,978-3,034 feet and was swabbing 50 bbls.; No. 2, SW cor. SE SW SW, Section 12, sand at 2,970-3,044 feet, shot with 160 quarts, 650 bbls.; No. 3, SE cor. SW SE SW, Section 12, sand at 3,000-62 feet, hole full of oil; No. 4, SE cor. SW, Section 12, sand at 2,998-3,059 feet, hole full of oil; No. 14, NW cor. NE NW SW, Section 12-27-5, sand at 2,960-3,007 feet, hole full of oil, fishing for tools; No. 15, NE cor. NW NE SW, Section 12, sand at 2,975-3,031 feet, 600 bbls. a day naturally; Carter Oil Co.'s No. 1, NE cor. Section 20-26-6, sand at 2,910-72 feet, 75 bbls. a day naturally; Lewis Oil Co.'s No. 1, NW cor. NE, Section 21-26-6, sand at 2,931-89 feet, shot with 120 quarts, 420 bbls.; No. 2, NW cor. NE NW NE, Section 21, sand at 2,929-82 feet, shot with 90 quarts, 350 bbls. Carter Oil Co.'s No. 1, NW cor. Section 21-26-6, sand at 2,900-74 feet, shot with 100 quarts, 100 bbls.; No. 2, NE cor. NW NW, Section 21-26-6, sand at 2,925-84 feet, 53 bbls. a day naturally; No. 4, NE cor. NW, Section 21-26-6, sand at 2,925-80 feet, shot with 120 quarts, 500 bbls.

The Skelly Oil Co.'s No. 1, SW cor.

Section 2-27-5, which got sand at 2,952-99 feet, was shot with 80 quarts and the pipe collapsed. It is believed this well will make no better than 20 bbls. a day. This lease was bought for $10,500. The Carter Oil Co.'s No. 1, NE cor. Section 20-26-6, started at 580 bbls. a day following a shot of 120 quarts in sand at 2,910-72 feet. This lease cost the company $42,000, and the first well on it makes it look like a fortunate purchase.

The Texas Co. has started drilling No. 1, SE cor. Section 25-26-9.

The Owens-Osage Gas Co.'s No. 317, NE cor. SW SW, Section 10-27-11, was shut in as a 2,500,000-foot gas well at 1,864 feet. The Winona Oil Co.'s No. 10, SW cor. SE SW SE, Section 28-24-10, is an 8-bbl. well in Cleveland sand at 1,360-78 feet, and the Peters Petroleum Co. has a 10-bbl. well from the same sand at 1,345-65 feet, NE cor. SE NE NE, Section 33-24-10.

The Winona Oil Co. has a rig up for No. 1, NE cor. SW, Section 18-27-12. The Skelly Oil Co. has started drilling No. 1, CSL SE, Section 3-21-9; the Devonian Oil Co. is drilling below 900 feet in No. 1, CSL NW, Section 14-21-10.

The New England Pipe Line Co. is drilling below 400 feet in No. 1, C SE SE NW, Section 22-22-6.

**Pawnee and Payne Counties**

The Fisher Oil Co. and others have a rig up for No. 1 Wright, NE cor. NW SW, Section 27-21-7, northwest of Cleveland.

Holmes & Burton's No. 1 Stoneman, NW cor. NE SE, Section 28-20-9, Terlton district, started at 270 bbls. a day nautrally from sand at 2,720 feet, drilled in 1 foot. The rig is up for No. 2, SW cor. SE SE.

In the Yale district, Payne County, the Magnolia Petroleum Co. has a rig up for No. 1 Walker, SE cor. NE SW, Section 8-19-5.

In the North Cushing or Yale Pool, Payne County, the Shaffer Oil & Refining Co. drilled deeper in an old well, No. 9 Laughlin, NW cor. NE, Section 2-18-5, and got a sand at 3,443-70 feet, which was shot with 15 quarts; the well responding with a production of 180 bbls. the first day. The company has started drilling No. 12 Laughlin, SE cor. NE NE, Section 2 and has a rig up for No. 15, SW NE NW NE, Section 2.

The Independent Oil & Gas Co. has a rig up for a test, NW cor. SE NE, Section 33-17-6. H. C. Wilson has a rig up for No. 1 Johnson, SW cor. NE, Section 20-17-6. These tests lie west of the old Shamrock Field and in Lincoln County.

In the Davenport district, Lincoln County, the Magnolia Petroleum Co. has a rig on the ground for No. 2 Booth, C NE SE SW, Section 34-15-5; a rig up for No. 2, C NW SW SE, Section 34 and a rig on the ground for No. 1, C SW NW SE, Section 34.

**Deep Dry Hole**

The McMan Oil Co. and Magnolia Petroleum Co.'s test, C SE SE NE, Section 2-15-6, between the Davenport Pool and the south end of the Shamrock Field, was abandoned as dry at 4,156 feet.

Near Stroud the Wilcox Oil & Gas Co.'s No. 2, NE cor. SW SW, Section 15-14-6 was drilling below 450 feet. The Union Petroleum & Supply Co., which opened the Stroud Field has a 20-bbl. well in its No. 2, Lot 16, Block 5, SE cor. SW NE NW, Section 12-14-6 from sand at 4,052-4,174 feet after a 20-quart shot. Hoyt & Wicker's No. 1, Lot 24, Block 4, C NE NW, Section 12-14-6, had 300 feet of oil in the hole and was drilling in sand topped at 4,080 feet. The Magnolia Petroleum Co.'s No. 3 Lain, NW cor. SW NE, Section 3-14-5, was drilling at 500 feet.

**Kay County**

The Comar Oil Co.'s No. 1-A Kincaid, SE cor. NE, Section 21-29-1w, was drilling below 800 feet.

Poling & Denny completed a 44,000,-000-foot gas well in No. 2, NE cor. NW, Section 9-27-1w, Kay County, in sand at 2,440-52 feet. The Blackwell Oil & Gas Co.'s No. 3, SE cor. NE SE, Section 9-27-1w, was drilling below 300 feet, and the same company's No. 5, SW cor. NW SW, Section 10-27-1w, was drilling at 400 feet. The National Union Oil Co.'s No. 1, SW cor. NW, Section 6-26-1w, was drilling below 300 feet. The Marland Refining Co. has a rig up for No. 4 Hill, SE cor. NE, Section 1-26-2w, Hubbard Pool, Kay County. The Prairie Oil & Gas Co. was drilling below 800 feet in No. 3-A Vanatta, SW cor. SE SE, Section 1-26-2w; had a rig up for No. 4-B Vanatta, SW cor. NW SE, Section 1-26-2w, and was drilling at 300 feet in No. 5-B Vanatta, NE cor. SE, Section 1-26-2w. Marland Refining Co.'s No. 4 Hubbard, SE cor. NE NW, Section 12-26-2w, was drilling at 300 feet.

**Deep Sand Wells**

The Texas Co.'s No. 9 Gilbert, SE cor. NE SE SW, Section 27-25-1w, was drilling below 1,200 feet. T. B. Slick was drilling at 300 feet in No. 1, NE cor. SW NE NW, Section 27-25-1w. The Comar Oil Co.'s No. 2-W, SW cor. NW, Section 34-25-1w, was flowing 1,000 bbls. naturally from sand at 4,190-4,300 feet. The Marland Refining Co.'s No. 2, SE cor. SW SW, Section 15-25-1w, was good for 7,000,000 feet of gas and a 40-bbl. spray of oil from sand at 3,973-75 feet. The Comar Oil Co.'s No. 3-W, SW cor. NW NE, Section 2-24-1w, started at 1,-200 bbls. a day at 3,971-4,099 feet.

The Ona Oil Co. has spudded in a test, SE cor. SW, Section 17-29-1e, Kay County.

The Blackwell Oil & Gas Co. shut in a 35,000,000-foot gas well in No. 2, NW cor. NE, Section 9-27-1w, producing from sand at 3,436-50 feet. The same company's No. 3, SE cor. NE SE, Section 9-27-1w, was drilling at 950 feet; No. 5, SW cor. NE SE, Section 10-27-1w, at 1,335 feet. O'Kansas Oil Co.'s No. 1, NW cor. Section 32-27-1w, below 300 feet; National Union Oil Co.'s No. 1, SW cor. NW, Section 6-26-1w, at 500 feet; Marland Refining Co.'s No. 4 Hill, SE cor. NE SE, Section 1-26-2w, at 300 feet; Mutual Oil Co.'s No. 1, SE cor. NE NW, Section 1-26-2w, rigged up.

The Marland Refining Co.'s No. 1, SE cor. Section 1-26-2w, started at 600 bbls. from sand at 2,541-51 feet. There was also 75 bbls. of water.

Saligney and others have a rig on the ground for a test, NE cor. SE NW, Section 31-27-2e.

**In Garvin County**

The Knox Petroleum Co. has a machine rigged up for No. 1, CEL SW NE, Section 2-2n-5w, Garvin County. E. P. Kilgore's No. 1, NW cor. SW NE, Section 2-1n-5w, is spudded in. The Magnolia Petroleum Co.'s No. 6, NW cor. SE SW NW, Section 16-1n-3w, was drilling below 200 feet.

**Stephens County**

The Magnolia Petroleum Co. is rigging up rotary for a test, SE cor. NE, Section 3-2s-5w, Stephens County. In the Duncan Field, Stephens County, the American Pipe Line Co. was drilling at 1,906 feet with a showing of 2,500,000 feet of gas in their No. 1, SW cor. NW, Section 25-1n-9w. The Coline Oil Co. will deepen its No. 6, CEL NE SE, Section 25-1n-9w. Winkler and others have a rig up for No. 1, SW cor. NE SE SE, Section 26-1n-9w. The Kay Wye Oil Co. have rotary rigs in for No. 4 Brown, SE cor. NE, Section 26-1n-9w, and for No. 2, C SW SE, Section 26-1n-9w. William Priddy's No. 2 Coffett, NW cor. NE NE SE, Section 26-1n-9w, was drilling below 300 feet. Frates and others have abandoned as dry their No. 1 Sweeney, C NW SW, Section 30-2n-6w, Grady County.

The National Oil Co.'s No. 2, SW cor. SE SW, Section 11-2s-11w, was abandoned as dry at 2,072 feet.

Crump & Beard's No. 1-A, SE cor. SW NW SW, Section 14-1s-8w is rigged up. The Grisby Oil Co.'s No. 1 Worrell, NE cor. SE SE NW, Section 22-1s-8w was shut in, a 3,500,000-foot gas well at 1,-994-2,009 feet was shut in. The Lone Star Gas Co.'s No. 5, NW cor. SW NW, Section 30-1s-8w, was dry and abandoned at 2,357 feet. The Magnolia Petroleum Co.'s No. 16, SE cor. SW SE NE, Section 33-1s-8w, made a 40-bbl. well at 1,675-80 feet. The Carter Oil Co.'s No. 4 Cox, NW cor. NE NE, Section 25-1s-


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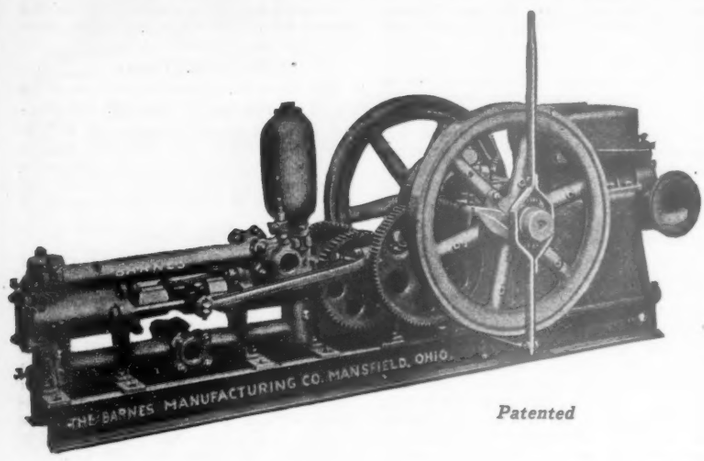


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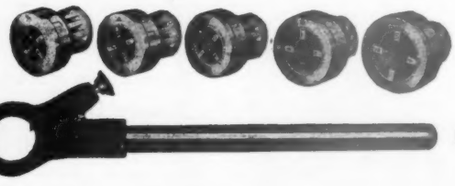

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9w, got sand at 2,270-73 feet and a 3,000,000-foot gas production.

Clarke & Cowden finished a 20-bbl. well in No. 1-A, C SE SW SW, Section 18-2s-7w at 1,380-93 feet.

Completions in the Carter County fields included the Humble Oil & Refining Co.'s No. 1 Miller, C NW NW NE, Section 29-1s-3w, dry and abandoned at 3,002; Magnolia Petroleum Co.'s No. 2 Arrington, C NW SE SW, Section 32-2s-2w, dry and abandoned at 3,007 feet; Humble Oil & Refining Co.'s No. 2, C SW NE SW, Section 27-2s-3w, 10,000,00 feet of gas from sand topped at 3,518 feet. Schermerhorn and others' No. 2-B Palmer, C NW NW NW, Section 5-3s-2w, pumping 45 bbls. a day from sand at 2,145-2,216 feet; Wolverine Oil Co.'s No. 66 Dillard, NW cor. NE NE, Section 22-4s-2w, 130 bbls. naturally from sand at 2,035-2,484 feet.

The Humble Oil & Refining Co.'s No. 1, C NW NW NW, Section 19-1s-3w, was drilling at 1,450 feet; same company's No. 1 Jordan, C SE SE NW, Section 19-1s-3w, drilling below 1,260 feet; Magnolia Petroleum Co.'s No. 1, C NW NW SE, Section 19-1s-3w, drilling below 900 feet.

**Jefferson County's Results**

In Jefferson County, Crump & Beard's test, C SW SE SW, Section 11-3s-5w, is a 10-bbl. well naturally at 1,260-65 and 1,269-82 feet. The Prairie Oil & Gas Co. had a machine in for No. 1, SE cor. SW NE SW, Section 34-6s-5w. The same company's No. 2 James, C SE NW SW, Section 34-6s-5w, made 10 bbls. the first 24 hours from sand at 1,321-32 feet. The Carter Oil Co.'s No. 2, C NE SW SW, Section 34-6s-5w, started at 175 bbls. a day from sands at 1,210-22 feet and 1,311-23 feet. The Prairie Oil & Gas Co. had a machine in for No. 3, C NW NW SW, Section 34-6s-5w, and the Carter Oil Co. had a rotary rig up for No. 1, NE cor. NW NE NW, Section 34-6s-5w.

In Cotton County, Font Rush and others are drilling below 400 feet in No. 1-A Wilson, NW cor. NE SE, Section 36-4s-11w.

In eastern Muskogee County, J. W. Hale has a 1,000,000-foot gas well in No. 1, C SW SE NE, Section 7-14-19 at 716-20 feet. He was drilling below 768 feet.

## CANADIAN FIELDS

(Continued from Page 48)

storage and distributing plant at Lethbridge, which will be made the company's chief distributing center in southern Alberta.

In east central Alberta, the Fuego Oil Co. is hauling fuel and equipment for its unfinished test in Acadia Valley, south of Oyen, and will resume drilling early in April.

In the Ontario fields, Union Natural Gas Co.'s No. 256, on the Barr farm, near the Lake shore, in the Tilbury Field, Kent County, has finished in the Tilbury sand at 1,350 feet with a small gas production, estimated around 100,000 feet a day. The new deep test in Dover Township has not yet started work. Shallow drilling operations in Zone and Camden townships, Kent County, where showings of oil were recently reported, have been temporarily shut down.

In Norfolk County, the Dominion Natural Gas Co. has finished No. 4 on the William Townsend farm, in the Courtland Field, near Tillsonburg, with an estimated production of 300,000 feet a day or better. This is the third well drilled in the new field, all being producers. No. 2, previously reported at 800,000 feet a day, is now stated to be making 1,000,000 feet. The rock pressure is understood to be exceptionally heavy, and it looks as though a new field of some importance has been opened up between Tillsonburg and Lake Erie. Toronto interests have secured acreage opposite the Townsend farm, and will probably drill an offset to No. 4.

In the Petrolia Field, Lambton County, the J. & J. Kerr pumping rig in the rear of the Tecumseh Block, Petrolia, was burned recently.

## IMPORTANT TEST IN NEW FIELD REACHES PAY SAND

(Continued from Page 35)

1 Lamberth is drilling at 2,920 feet after casing off fresh water at 2,760 feet.

D. C. and M. C. Syndicate set casing at 410 feet in No. 6 Lowe, a cable job which bailed oil at that depth. It expects to have the well tested by the last of this week and believe it is the opening of a new shallow pool. It is 10 miles southwest of the Calliham Field and 9 miles south of Tilden.

San Balt is drilling at 1,000 feet on No. 1 Shiner on the Shiner ranch several miles south of the Lowe ranch test and south of the Nueces River, where he expects to open up still another shallow pool of lubricating oil which he picked up at 1,500 feet in the deep test.

The Plateau Oil Co. has abandoned its No. 1 Patterson in lower Live Oak County at 3,030 feet. It is several miles west of the gas field which the company brought in in conjunction with the Texas Pacific Coal & Oil Co. Pipe line extension of the Southern Natural Gas Co. from the McMullen County end of its line to the new gas field was completed a week ago and following a test of the line and some delay due to a heavy rain washing out the ditch, gas from the two completed wells was turned in last week. The third well No. 1 S. G. Miller, is 1 mile west of the two producers and the plans call for the drilling of five additional wells.

The Magnolia Petroleum Co. has probably added a new pool to the Mirando Field in Webb County. A mile east of the Schott Pool it was drilling for gas to use for fuel in field operations when it topped a sand at 1,850 feet and the hole filled half way with oil. Standard tools are being put in to complete the well. There are dry holes between it and the Schott Pool and the new well is up on the escarpment.

Plateau, and Plateau interests, have completed two gassers in the new Henne, Winch & Fariss Pool of Jim Hogg County at the south end of the Mirando Field that are considered of importance as marking the boundaries of the pool. The Plateau-Buchanan No. 3 300 feet west of its No. 2 on Lot 7 of the Martinez tract and at the south end of the pool is a dry gasser making 12,000,000 feet and seems to indicate the western limits at that end of the pool.

The Plateau-Texas Pacific Co.'s No. 1 on Lot 26 of Block 15 of the Holbien ranch at the north end of the field is a gasser of the same size and spraying a little oil. It hit the sand 20 feet higher than the Kisselman & St. Albans gas wells south of it and there is some indication that it may be on the edge of a new oil pool to the north of the Henne, Winch & Fariss Pool.

The York Creek Oil Co.'s test north of the Guadalupe County section of the Luling Field has become a mystery well. It was brought in on the Fulshur tract at 2,060 feet a week ago and rated at 100 bbls. The United North & South holds an adjoining lease and it has put up a derrick in a test about 900 feet east of the York Creek. The York Creek test is standing.

### INCREASE CAPITAL

OKLAHOMA CITY, Okla., March 28. Increases of capital stock and capital investment in Oklahoma aggregating over $4,000,000 were reported recently to the Secretary of State by oil corporations. The largest increase reported was that of the Producers & Refiners Corp. of Wyoming, being from $3,460,000 to $6,332,508.33. An increase from $1,200,000 to $3,300,000 was reported by the Oklahoma Eastern Oil Co. of Tulsa, of which J. H. Evans of Tulsa; H. J. Crawford of Emlenton, Pa., and J. P. Flynn of Sistersville, W. Va., are officials.

Other increases were by the Wrightsman Petroleum Co. of Delaware from $200,000 to $280,433.59, the Silurian Oil Co. of West Virginia from $10,000 to $242,950, the Ardmore City Gas Co. of Ardmore, Okla., from $250,000 to $350,000, and the Tri-State Oil Supply Corp. of Picher, Okla., from $10,000 to $20,000.

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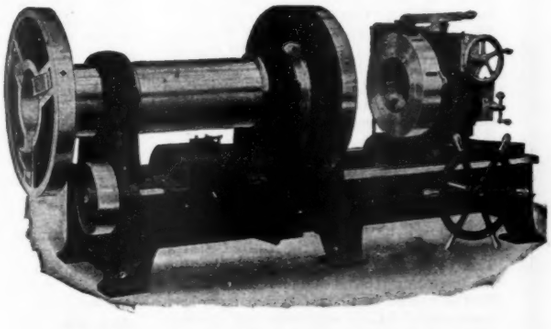

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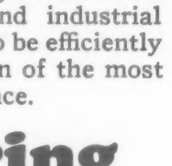

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# INDEPENDENT OIL EXECUTIVE APPROVES CONSERVATION BOARD

OKMULGEE, Okla., March 28.—Hearty approval of the Federal Oil Conservation Board, appointed by President Coolidge; a criticism of the economic working of the posted price system of purchasing oil and an objection to the waste of oil taxpayers' money by the State were the highlights in an address by Colonel P. J. Hurley, president of the Gilliland Oil Co., who was the guest of honor at the weekly dinner of the Okmulgee District Oil and Gas Association here today.

"During recent months there has been much discussion concerning the Oil Conservation Board appointed by the President to inquire into the responsibility of the Government to the citizens of the nation in regard to the supply of crude oil," said Colonel Hurley. "Great publicity has been given to certain suggestions made to the board and some oil producers have been afraid it might have a tendency toward communism, or in a more restricted sense, Government ownership and operation of the various branches of the industry. I am convinced that these suggestions did not emanate from any of the members of the board. In my opinion, the board is as much opposed to any tendency toward communism or Government ownership, as the men who are actually engaged in the industry.

"Those who are engaged in the oil industry know that from the very nature of the business that Government operation would be a stupendous failure, a colossal folly, and would wreck the industry. The hazards connected with the finding of crude oil; the courage required in risking everything in uncovering these rich storehouses of nature necessitates certain elements of character found only in individuals, never in Government operation. The technique required to extract the largest amount from a given reservoir; the transporting at minimum costs; the manufacturing and extraction of various products by the most effective methods; the marketing of these products in every hamlet at the smallest margin of profit, are all products of individual genius and fierce competition that can never be accomplished by Government ownership or Government interference. The present administration at Washington and the newly appointed Oil Conservation Board is familiar with these facts, and therefore I think those of us engaged in the oil industry need have no fear of Government ownership or communism in the oil industry.

"The board is seriously interested in assembling all possible information as to the extent of our crude oil resources. It is estimated that about 8,000,000,000 bbls. of crude oil have been produced since oil was first discovered in the United States. The best petroleum engineers say that we have not recovered more than 25 per cent of the oil in the sands that have been discovered. Many engineers put the percentage of recovery much lower than this. If we have produced 8,000,000,000 bbls. and have only produced one-fourth of the oil discovered, there is left to be produced 24,000,000,000 bbls. from oil sands and oil strata now discovered. Of course the proportion of the extraction of the oil remaining in the ground must depend on improved engineering methods. There are those who contend that most of the oil in the United States has been discovered, but this is merely a conjecture. There are many experienced oil engineers and oil operators who contend that only a small portion of the oil in place has been discovered and that the producing industry in the United States will continue to expand and that the average daily production of the future will be much greater than the average production of today.

**Control of National Resources**

"The third question that will no doubt have the attention of the Conservation Board will involve the international aspects of the oil industry and the extent to which other nationals should be permitted to engage in the oil business in the United States. It is pointed out that in the next war, oil will be a controlling element. It furnishes the means of transportation by land and sea. It propels the submarines and the airships. The god of battles in the next great war will be on the side of the nation having the greatest supply of oil. There are those who contend that for this reason, the oil business in the United States should not be permitted to pass to any great extent into the hands of other nationals I have no idea how the board will look on this subject, but in my own opinion, there is a vast difference between owning the greatest supply of oil and controlling the greatest supply of oil. For instance, if the United States should have war with some nation whose nationals are producing a considerable amount of oil in the United States, it is not reasonable to believe that the United States would permit these nationals to deliver this oil to their nations while the war is in progress. In other words, it would make no difference who is producing the oil in the United States. The oil produced would be controlled by the United States Government during any war-time emergency. Many elements would enter into the control of oil in time of war. If it had to be used outside of the United States, control of the seas would be one of these elements if the question of transportation by water should intervene. There is no serious question involved on this point so long as the oil is produced in the United States. It makes no difference who produces the oil, the United States will control it."

**The Posted Price System**

On the subject of the posted price system Colonel Hurley said:

"During the recent depression there was much criticism of the posted price system in the purchasing of crude oil. This system has in many instances worked a hardship on the producers of crude oil. An examination of the financial statements of the various companies engaged in the oil industry indicate that those engaged in the transportation of oil have made money throughout the depression. The larger refiners have made money throughout the depression. Most of the distributing agencies have made money throughout the depression. The loser has invariably been the refiner. The margin of profit for the refiners, transporters, and the distributors must always be provided for. The losses invariably go back to the producing end of the industry. The producing department of the industry is the least profitable and the most hazardous. Much more money has been lost in the producing department of the oil idustry than in all other departments put together.

"The producer of crude oil is the 'shock-absorber' for the other departments of the industry. There have been a lot of good arguments put forth to justify the posted price system. It has been argued that it prohibits a runaway market; it protects the public by not permitting the price of oil to become excessive; it has a stabilizing influence on the industry. We agree that all of these things are good, but to justify its existence the posted price system should also protect the producer of crude oil by not permitting the price to be reduced to a point that is ruinous to the producer. When the posted price system permits this to be done, it ceases to have an excuse for existence as much so as if it permitted the price to rise to such a point that the public would be imposed upon. If the posted price system of purchasing is instituted for the purpose of protecting the public from excessive prices during periods of shortage in production, it should operate to protect the investment of the producer during periods of overproduction."

Colonel Hurley, admitting the State's right to levy taxes on petroleum, objected to the pork barrel methods of expenditure of the money thus paid to the State.

## NORTH CENTRAL TEXAS

(Continued from Page 32)

Development Co.'s No. 1 Downtain, at 1,635 feet; States Oil Corp.'s No. 5 Homer, at 850 feet; No. 15 Harrell, cleaning out at 1,903 feet; No. 4 Summerall, drilling at 1,250 feet; Adams and others' No. 1 Donovan, underreaming; No. 1 League, drilling at 100 feet; Ardizone and others' No. 1 Kincaid, fishing at 3,280 feet; Burkett and others' No. 1 Robinson, drilling at 1,600 feet; Car-De-Zone Oil Co.'s No. 4 Stubblefield, at 1,035 feet; Dorothy Oil Co.'s No. 2 Davenport, cleaning out at 3,380 feet; Hart Oil Corp.'s No. 1 Amis, spudding new hole; Lindsay and others' No. 2 Dulin, drilling at 600 feet; Pennant Oil & Gas Co.'s No. 8 Teston, 875 feet; States Oil Corp.'s No. 6 Calvert, at 700 feet; No. 1 Hise, at 400 feet; Texas Development Co.'s No. 1 Eppler, at 400 feet.

### Brown County Drilling

Cal-Bro Oil Syndicate's No. 3 Prather is spudding; Canyon Oil & Gas Co.'s No. 4-B McDonough, drilling at 553 feet; Honea and others' No. 2 DeBusk, fishing at 2,345 feet; Moore and others' No. 1 Gafford, drilling at 872 feet; Thomas and others' No. 1 Bohara, to shut off water at 2,410 feet; Williams and others' No. 1 Newton, drilling at 1,300 feet.

### Reagan County Drilling

Big Lake Oil Co.'s No. 16 University is reaming; No. 17 University, will drill deeper from 2,440 feet; No. 18 University, underreaming; No. 19 University, drilling at 2,390 feet; No. 20 University, fishing at 2,450 feet; No. 21 University, drilling at 2,350 feet; No. 22 University, at 935 feet; No. 23 University, at 2,125 feet; No. 24 University, setting casing at 2,614 feet; No. 25 University, drilling at 1,880 feet; No. 25 University, drilling at versity, at 3,480 feet; Cogdell and others' No. 1 University, skidding rig; Hoffman and others' No. 1 University, drilling at 2,425 feet; McCamey and others' No. 1 University, underreaming; McGuire and others' No. 1 Merchant, drilling at 565 feet; Pilot Oil Corp.'s No. 1 University, at 2,840 feet; Simms Oil Co.'s No. 1 Sawyer, plugging at 3,501 feet; Texon Oil & Land Co.'s No. 5 Group 1 University, setting casing at 2,585 feet; No. 6 Group 1, University, drilling at 2,220 feet; No. 7 Group 1, University, fishing at 2,600 feet; No. 8 Group 1 University, fishing at 2,530 feet; No. 9 Group 1 University, drilling at 2,715 feet; No. 2 Group 2 University, at 1,900 feet; No. 3 Group 2 University, at 1,020 feet; Wrightsman and others' No. 1 Ingham, at 3,150 feet.

### Wildcats Drilling

Roberts County: Eagle and others' No. 1 Ledrick is drilling at 1,720 feet.

Hutchinson County: Barnum and others' No. 1 Johnson, is underreaming; Middleton and others' No. 1 Weatherly, spudding; Amarillo Oil Co.'s No. 2-B Bivins, reaming at 2,727 feet; Prairie Oil & Gas Co.'s No. 1 Shaw, reaming at 3,335 feet; Wilson and others' No. 1 Whittenburg, fishing at 2,905 feet.

Moore County: Amarillo Oil Co.'s No. 1-A Masterson has 10,000,000 feet of gas at 2,210 feet; No. 1 Bush, casing collapsed at 3,495 feet.

Carson County: American Refining Co.'s No. 1-C Burnett is drilling at 450 feet; Crosbie Oil Co.'s No. 2 Burnett, at 1,450 feet; Marland Oil Co.'s No. 1 Burnett, drilling out plug at 3,001 feet; Olson Brothers' No. 1 Burnett, fishing at 2,860 feet; The Texas Co.'s No. 5 Burnett, underreaming; No. 2-A M. C. Burnett, setting casing at 2,871 feet.

Gary County: Anderson and others' No. 1 Bradford, drilling in shale at 2,085 feet; Danciger Oil & Refining Co.'s No. 1 Bowers, drilling at 1,900 feet; Holmes and others' No. 2 Morse, plugging back to 2,716 feet; Wilcox Oil & Gas Co.'s No. 1 Combs & Worley, drilling at 820 feet.

Wheeler County: Shedden and others' No. 1 Westmoreland, drilling at 720 feet; Whittington and others' No. 3 Williams & Laycock, drilling at 1,200 feet; No. 4 Williams & Laycock, at 1,210 feet; Vaughn and others' No. 1 Krey, at 210 feet.

Cottle County: Woodley and others' No. 1 Dulaney, drilling at 2,908 feet; Bowser and others' No. 1 Pitchford ranch, at 290 feet.

Parker County: English and others' No. 1 Peters is drilling at 826 feet.

Baylor County: Bussell and others' No. 1 Bussell, drilling at 1,600 feet; Dyer and others' No. 1 Cox, at 600 feet; McCaldin and others' No. 1 Martin, at 1,320 feet; Sheldon and others' No. 1 Mills, spudding a new hole.

Clay County: Bennett and others' No. 1 Holloway, drilling at 900 feet; Atlantic City Production Co.'s No. 1 Scaling, fishing at 3,112 feet; Culbertson and others' No. 1 fee, fishing at 1,540 feet.

Montague County: Daniels and others' No. 1 Howard, drilling at 1,460 feet; Humphreys Boyd Oil Co.'s No. 2 Maddox, drilling at 2,176 feet; Owenwood Oil Corp.'s No. 1 Salmon, at 1,150 feet; Texhoma Oil & Refining Co.'s No. 1 Lemon, at 302 feet; No. 3 Howard, at 1,247 feet.

Cooke County: Leonard and others' No. 1 Hamilton. bailed with no show at 1,885 feet; Pettit and others' No. 1 Nelson, drilling at 2,515 feet; Rowson and others' No. 1 Aldridge, at 2,506 feet; Red River Drilling Co.'s No. 1-A Jones, at 1,400 feet.

Grayson County: Clopton and others' No. 1 Thorne is underreaming; Whitesboro Oil Development Co.'s No. 1 Anderson, drilling at 800 feet.

Throckmorton County: Cunningham others' No. 1 Portwood is spudding; Davis Hart Co.'s No. 1 Rogers, drilling at 1,164 feet; Johnston and others' No. 1 Batchlor, at 200 feet; Larkin and others' No. 1 Richards at 1,403 feet; McGee and others' No. 1 Keeter, at 892 feet; McNeil and others' No. 1 Travis County, at 1,780 feet; Panhandle Refining Co.'s No. 1 Martin, at 1,115 feet; Plains Production Co.'s No. 1 Peck, at 1,022 feet; Red Bank Oil Co.'s No. 1 Graham, at 310 feet; Rider-Foster Oil Co.'s No. 1 Stubblefield, at 2,215 feet; Schimmell Oil Co.'s No. 1 Kelly, at 1,096 feet; Sheldon and others' No. 1 Whittaker, at 550 feet; Smith Oil Co.'s No. 1 Burkhalter, drilling by tools at 730 feet; The Texas Co.'s No. 1 Smythe, cleaning out at 2,901 feet.

Scurry County: Northwest Oil Co.'s No. 2 Moore is drilling at 1,088 feet.

Shackelford County: Haile and others' No. 1 Reynolds is setting casing at 3,100 feet; Landreth Production Co.'s No. 1 Kendrick, spudding; Liggie and others' No. 1 Black, drilling at 610 feet; McLean Drilling Co.'s No. 1 Matthews, spudding; Phillips Petroleum Co.'s No. 1 Compton, underreaming; No. 1 Jackson, drilling at 3,502 feet; No. 2 Parrish, at 330 feet.

Palo Pinto County: Scott and others' No. 3 Wheeler, drilling at 3,430 feet; Hart and others' No. 1 Cardwell, drilling at 1,060 feet; Little Caddo Syndicate's No. 2 Massie, underreaming; Moore and others' No. 2 Stuart, setting casing at 1,675 feet; Phillips and others' No. 1 Caudill, cleaning out at 3,800 feet.

Callahan County: Byron Union Oil Co.'s No. 1 Hennessey is cleaning out at 4,540 feet; Prewitt and others' No. 1 W. W. Crane, drilling at 1,930 feet; No. 1 Lineecum, underreaming; Urban and others' No. 1 Alvord, drilling at 2,325 feet.

Mitchell County: Eastland Oil Co.'s No. 1 Clark is drilling at 1,400 feet; No. 3 Keynard, at 500 feet; Sloan and others' No. 6 Smart, at 500 feet; California Co.'s No. 1 Elder, at 750 feet; No. 8 Abrams, at 2,722 feet; Thompson and others' No. 1 Adams, at 800 feet.

Loving County: P. V. Petroleum Co.'s No. 1 Russell is drilling at 800 feet.

Sterling County: Co-Operative Lease and Development Co.'s No. 1 Douthit is cleaning out at 2,000 feet; Chicago-Texas Oil & Gas Syndicate No. 1 Durham, drilling at 1,810 feet; Ford and others' No. 1 Foster, at 1,820 feet.

Comanche County: Mon-Tex Oil Corp. No. 1 Goss is drilling at 1,635 feet.

Iron County: Gladys Belle Oil Corp.'s No. 1 Suggs is drilling at 1,725 feet; Denny and others' No. 1 Spring Creek, at 150 feet.

Pecos County: Arkansas Fuel Oil Co.'s No. 1 Blackstone is drilling at 2,500 feet; Plymouth Oil Co.'s No. 1 Perry, at 2,400 feet.

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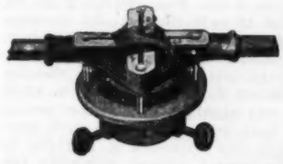

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R E S U L T S

# All Securities, Including Oils, Weak

## Bear Drive Due to Technical Position of General Market Apart from General Trade Conditions and Petroleum Situation

By N. O. Fanning
*Room 543, No. 30 Church St., New York*

NEW YORK, March 28.—Oil stocks fell heavily in the past week in sympathy with pronounced weakness in all important securities markets here. The extent of losses is indicated by the drop in The Oil and Gas Journal's weekly average price of 20 representative oil issues dealt in on the New York Stock Exchange. The averages since the high of 1925 follow:

| | |
|---|---|
| March 2 (high) | 59.56 |
| March 9 | 57.73 |
| March 16 | 54.14 |
| March 23 | 52.90 |

The total loss from March 2 to 23, a period of only three weeks, amounts to 6.66 points, or about 11.2 per cent. Almost half of the increase in the average in the bull movement from October 11 to March 2, last, amounting to 14.32 points, was wiped out in this short period.

In a bear drive such as the stock markets have just witnessed it is futile to look for special reasons governing the movement of individual issues, inasmuch as trading is largely governed by technical conditions having to do with the position of speculators, professional traders and investors in stocks. If there happen to be many "weak" accounts, operated on slim margins, these are generally wiped out in any extensive decline, a development which simply adds to the volume of selling. Many investors are also inclined to sell when they see Exchange quotations decline. All of these factors are entirely apart from conditions of individual oil companies, and often run directly contrary to trade conditions.

There has been some weakness in refined oil prices as well as crude which might account for the disappearance of excessive enthusiasm marketwise, but this is looked upon as a lull in the upward course of things, rather than any inherent weakness. The oil business is now said to be in a state of adjusting itself to the new level of prices. The increased output which naturally comes with any such advance must be absorbed before there are any new increases, according to oil trade authorities.

### Anglo-American Firm

It would probably not be amiss to call attention to the relative firmness in the stock of the Anglo-American Oil Co., which in the recent bear market made a new high for the year of 21¼. This is looked upon as the result of the announced intention of the company to redeem all of its outstanding notes (approximately $15,000,000) which will leave the company clear of debt. It is also considered likely that the dividend usually declared in mid-year will be larger than the two shillings, or 35 cents, declared in December, 1924.

### New Financing

Transcontinental Oil Co. is offering through Gorrell & Co. of Chicago, H. D. Lindsley & Co. of New York, and Stein Bros. & Co. of Baltimore, a new issue of $4,000,000, five-year 7 per cent notes, maturing April 1, 1930. Each note will carry a detachable warrant which will entitle the holder to purchase 100 shares of common stock for each $1,000 par value of notes held on the basis of $5.50 per share on or before October 1, 1925, and from $6.50 to $12.00, depending on the date, from April 1, 1929, to April 1, 1929.

### Gulf Oil

The consolidated balance sheet of the Gulf Oil Corp. and subsidaries as of December 31, 1924, compares as follows:

**Assets**

| | 1924 | 1923 |
|---|---|---|
| Plant | $286,342,299 | $255,820,807 |
| Cash | 7,244,054 | 7,726,439 |
| Marketable securr. | 6,166,719 | ..... |
| Reacquired securr. | 2,556,625 | ..... |
| Other investments | 472,661 | 311,230 |
| Notes and accounts receivable | 10,482,256 | 9,085,704 |
| Inventories | 53,088,156 | 51,329,734 |
| Empl. loan | 9,639,987 | 7,454,544 |
| Deferred charges. | 3,540,652 | 3,771,095 |
| Total | $379,533,409 | $335,498,553 |

**Liabilities**

| | | |
|---|---|---|
| Capital Stock | *$108,952,900 | $108,720,400 |
| Funded debt | 49,039,500 | 35,000,000 |
| Notes and accounts pay | 10,255,842 | 13,632,002 |
| Accrued liabilities | 1,386,669 | 783,199 |
| Depr. and deplen. | 127,667,979 | 109,381,083 |
| Tax reserve, etc., | 3,594,158 | 2,737,439 |
| Deferred credit | 633,252 | 97,426 |
| Minority int. in subs. | 9,169 | 11,619 |
| Surplus | 78,093,940 | 65,135,385 |
| Total | $379,533,409 | $335,498,553 |

*4,358,116 shares of $25 par value.

### South Penn Oil

South Penn Oil Co. reports for the year ended December 31, 1924, net income of $1,527,468 after taxes, depreciation and depletion, equivalent to $7.63 per share earned on outstanding $20,000,000 capital stock, compared with a net loss of $938,985 in 1923.

The income account for 1924 compares with the preceding year as follows:

| | 1924 | 1923 |
|---|---|---|
| Gross | $13,508,804 | $13,435,658 |
| Exp. taxes, deprec. and deipletion | 11,981,336 | 14,374,643 |
| Net income | $1,527,468 | *$938,985 |

*Deficit.

The condensed balance sheet of the South Penn Oil Co. as of December 31, 1924, compares as follows:

**Assets**

| | 1924 | 1923 |
|---|---|---|
| Property account. | $ 8,258,992 | $10,008,432 |
| Cash and accounts receivable | 4,844,728 | 5,473,527 |
| Inventories | 16,702,422 | 16,170,718 |
| Secured notes, received, etc. | 8,855,819 | 8,359,493 |
| Deferred charges | 186,900 | 107,551 |
| Total | $38,848,861 | $40,119,721 |

**Liabilities**

| | | |
|---|---|---|
| Capital stock | $20,000,000 | $20,000,000 |
| Accts. payable | 6,299,237 | 9,097,528 |
| Tax reserve | 80,248 | 80,285 |
| Surplus | 12,469,396 | 10,941,908 |
| Total | $38,848,861 | $40,119,721 |

### Standard of Kentucky

The annual report of Standard Oil Co. of Kentucky for 1924 shows net profit of $5,382,940 after Federal taxes, equivalent to $7.98 per share (par $25) earned on the outstanding $16,864,434 capital stock, compared with $5,519,182, or $8.22 per share on $16,784,047 stock in 1923.

The income account for 1924 compares with 1923 as follows:

| | 1924 | 1923 |
|---|---|---|
| Profit | $ 6,151,940 | $ 6,286,182 |
| Federal taxes | 769,000 | 767,000 |
| Net profit | $ 5,382,940 | $ 5,519,182 |
| Dividends | 2,693,722 | 2,681,796 |
| Surplus | $ 2,689,218 | $ 2,837,386 |

The balance sheet of the Standard Oil Co. of Kentucky as of December 31, 1924, compares as follows:

**Assets**

| | 1924 | 1923 |
|---|---|---|
| Plant | $ 21,263,316 | $ 16,541,036 |
| Merchandise | 6,900,100 | 5,881,955 |
| *Cash, etc. | 8,688,518 | 8,533,390 |
| Total | $ 36,851,934 | $ 30,956,381 |

**Liabilities**

| | | |
|---|---|---|
| Capital stock | $ 16,864,434 | $ 16,784,047 |
| Accts payable | 5,200,287 | 3,506,335 |
| Depr. res. | 6,387,777 | 4,977,716 |
| Insur. fund. etc. | 391,006 | 372,562 |
| Tax reserve | 1,108,610 | 1,105,123 |
| Surplus | 6,899,820 | 4,210,599 |
| Total | $ 36,851,934 | $ 30,956 381 |

*Includes accounts receivable and other Investments.

### Vacuum Oil

The annual statement of the Vacuum Oil Co. for 1924 shows net profit of $17,403,834 after deducting $1,843,414 for inventory depreciation in addition to the usual plant depreciation and $1,000,000 for Federal tax reserve. This is equivalent to $7.02 per share (par $25) earned on $61,919,950 outstanding capital stock, compared with net profit of $13,314,114, or $5.41 per share on $61,523,075 stock in 1923.

The balance sheet of the Vacuum Oil Co. as of December 31, 1924, compares with 1923 as follows:

**Assets**

| | 1924 | 1923 |
|---|---|---|
| *Plants, etc | $ 21,098,227 | $ 20,323,471 |
| Stock of for. cos. | 18,797,070 | 18,843,077 |
| Other investments | 44,408 | 188,829 |
| Merchandise and materials | 30,811,010 | 26,150,150 |
| Accts. receivable | 21,623,705 | 7,423,323 |
| Cash and sec. | 39,180,840 | 54,467,716 |
| Deferred charges | 1,615,717 | 328,708 |
| Total | $133,170,977 | $127,725,274 |

**Liabilities**

| | | |
|---|---|---|
| Capital stock | $61,919,950 | $61,523,075 |
| Bonded indebt. | 16,100,000 | 16,100,000 |
| Accts. payable | 6,415,404 | 10,499,255 |
| Insur. reserves | 2,500,000 | 2,500,000 |
| Federal tax res. | 2,126,288 | 1,126,288 |
| Surplus | 44,109,335 | 35,976,656 |
| Total | $133,170,977 | $127,725,274 |

*After depreciation. †Par $25.

### Magnolia Petroleum Co.

Magnolia Petroleum Co. for year ended December 31, 1924, reports net earnings of $8,456,977 after depreciation, depletion and other expenses, but before Federal taxes, equivalent to $4.69 a share earned on $180,247,100 capital stock. This compares with $8,110,660, or $4.50 a share, on $180,000,000 stock outstanding in 1923.

Income account for 1924 compares as follows:

| | | |
|---|---|---|
| Gr. earnings | $ 57,335,550 | $ 52,012,914 |

### NEW YORK STOCK EXCHANGE—LIST OF ACTIVE STOCKS

| Stocks— | Par | ‡Dividends Rate | Clos. Mar.30 | Quot. Mar.23 | 1925 High | 1925 Low | 1924 High | 1924 Low | 1923 High | 1923 Low |
|---|---|---|---|---|---|---|---|---|---|---|
| American Republics | .. | .. | *50 | *50 | 66¼ | 48 | 48 | 25 | .. | .. |
| Associated Oil | 25 | 6 | 32 | 32⅝ | 39½ | 32 | 34⅝ | 27⅝ | 29¼ | 29½ |
| Atlantic Ref. com. | 100 | .. | 99 | 102¾ | 117½ | 95½ | 140½ | 78½ | 160 | 98¾ |
| Barnsdall "A" | 25 | .. | 21⅞ | 23½ | 28⅜ | 21½ | 22¼ | 14 | 37 | 9⅞ |
| California Pet. Com. | 25 | 7 | 27½ | 27⅜ | 31½ | 23⅞ | 29 | 19⅞ | 28½ | 17½ |
| General Am. Tank | .. | †3 | 46⅞ | 46 | 58½ | 45 | 53 | 35½ | 71⅝ | 40 |
| General Petroleum | 25 | 8 | 47⅛ | 49⅜ | 56¼ | 42 | 45 | 38⅞ | .. | .. |
| Houston Oil | 100 | .. | 60⅝ | 66⅛ | 85 | 60⅝ | 82½ | 61 | 78 | 40¾ |
| Independent Oil & Gas | .. | †1 | 22⅜ | 24 | 30 | 13½ | 16¼ | 5⅜ | 11¼ | 3⅜ |
| Indian Refining | 10 | .. | 6½ | 6⅜ | 10⅜ | 5½ | 7 | 3⅜ | 8½ | 4 |
| Louisiana Oil | 50 | .. | 14⅜ | 16⅜ | 23⅜ | 14¾ | .. | .. | .. | .. |
| Maracaibo | .. | .. | 26¼ | 26½ | 35½ | 25⅜ | 37½ | 25⅜ | 28¼ | 16 |
| Marland | .. | .. | 33 | 36¼ | 46¼ | 32⅜ | 42 | 29 | 59⅝ | 18½ |
| Mexican Seaboard | .. | .. | 12 | 13 | 22½ | 11⅜ | 26⅜ | 14½ | 19⅜ | 5⅜ |
| Mid-Continent Pet. | .. | .. | 26⅝ | 27⅜ | 35⅜ | 26½ | 40¼ | 22⅝ | 62¼ | 23¾ |
| National Supply | 50 | 6 | 62 | 62½ | 71 | 61¾ | 72½ | 54 | 68 | 54 |
| Pacific Oil | 50 | †2 | 53½ | 53⅝ | 65¾ | 52¼ | 58¼ | 45 | 52½ | 31½ |
| Pan American com. | 20 | 12 | 77⅛ | 77⅞ | 82⅜ | 65 | 65 | 44¼ | 93½ | 53 |
| Phillips Petroleum | .. | †2 | 36⅜ | 37⅜ | 46⅝ | 36¼ | 42¼ | 28½ | 69⅝ | 19¾ |
| Producers & Refiners | 50 | .. | 22 | 23¼ | 32⅝ | 22 | 43½ | 29⅜ | 58¼ | 17½ |
| Pure Oil com. | 25 | 6 | 25⅝ | 27 | 33⅜ | 25½ | 30¼ | 20 | 32 | 16¼ |
| Royal Dutch, N. Y. sh. | 13.40 | 4.42½ | 45 | 50⅛ | 57⅜ | 48¼ | 59½ | 40⅜ | 55½ | 40½ |
| Shell Transport | 10 | 3.30 | *40 | *40 | 45⅜ | 41 | 42 | 33 | 51½ | 29½ |
| Shell Union com. | .. | †1 | 23⅛ | 23½ | 28⅜ | 22½ | 22½ | 15⅜ | 19¼ | 12⅜ |
| Simms Petroleum | 10 | .. | 20⅜ | 20¼ | 26⅜ | 19⅜ | 24 | 10⅜ | 16⅜ | 6½ |
| Sinclair Consolidated com | .. | .. | 18 | 19 | 24⅞ | 17 | 27½ | 15 | 39⅝ | 16 |
| Skelly Oil | 25 | .. | 22⅝ | 23½ | 30½ | 21⅜ | 29 | 17⅛ | 35 | 12½ |
| Standard of California | 25 | 8 | 57½ | 58⅞ | 67¼ | 56⅝ | 68½ | 55½ | 64½ | 47½ |
| Standard of N. J. com. | 25 | 4 | 38⅝ | 40¼ | 47½ | 38⅜ | 42½ | 33 | 44¼ | 30⅞ |
| Superior Oil | 6 | .. | 4¼ | 4⅜ | 6⅛ | 4 | 8⅛ | 2⅝ | 6⅜ | 2 |
| The Texas Co. | 25 | 12 | 43⅜ | 44⅛ | 49 | 42⅜ | 45⅝ | 37⅜ | 52⅞ | 34⅝ |
| Texas Pacific Coal & Oil | 10 | .. | 13 | 15 | 23⅜ | 11½ | 15¼ | 8¼ | 24⅜ | 5½ |
| Tide Water Oil | 100 | 4 | 122 | 130 | 149 | 122 | 151 | 116¼ | 144 | 94 |
| Transcontinental | .. | .. | 4½ | 4⅛ | 5½ | 3⅞ | 6¼ | 3⅜ | 14½ | 1¼ |
| Union Oil of California | 25 | 7.2 | 36½ | 37 | 43⅜ | 36¼ | 39 | 35½ | .. | .. |
| Union Tank com. | 100 | 5 | 122 | 126 | 127⅝ | 118½ | 132⅞ | 94 | 114 | 106 |
| White Eagle Oil & Ref. | .. | 2¼ | 26½ | 26½ | 31⅝ | 26 | 29⅜ | 23⅛ | 30⅝ | 20½ |
| **Standard Oil Stocks** | | | | | | | | | | |
| Anglo-American Oil | £1 | 25 | 20⅜ | 20¼ | 21 | 18 | 18⅜ | 14⅜ | 19⅜ | 13½ |
| Borne Scrymser | 100 | 12 | *208 | *207 | 240 | 225 | 264 | 150 | 153 | 110 |
| Buckeye Pipe Line | 50 | 14 | 63 | 63½ | 72 | 62 | 85½ | 51 | 94 | 67½ |
| Chesebrough Mfg. Co. | 25 | 14 | *52½ | *53 | 70 | 48¼ | 52½ | 29¼ | 340 | 205 |
| Crescent Pipe Line | 25 | .. | *11½ | *11 | 15⅜ | 12¾ | 20 | 11¼ | 25 | 15 |
| Cumberland Pipe Line | 100 | 12 | *131 | *132½ | 150 | 128 | 148 | 109 | 117 | 80 |
| Eureka Pipe Line | 100 | 8 | *81 | *81 | 96 | 83 | 105 | 74 | 117¼ | 87 |
| Galena Signal com. | 100 | 4 | 57½ | *59¼ | 68½ | 56¾ | 69¾ | 52½ | 78 | 55 |
| Humble Oil & Refining | 25 | 4.8 | 43 | 43¼ | 47⅞ | 42¼ | 43¾ | 36 | 41 | 28¼ |
| Illinois Pipe Line | 100 | 12 | 141 | *142 | 154½ | 127 | 161 | 123 | 171 | 115 |
| Imperial Oil, Ltd. | .. | †2 | 27½ | 27⅝ | 34⅛ | 27⅝ | 119 | 99 | 123 | 92 |
| Indiana Pipe Line | 50 | 8 | 72 | 73 | 84 | 73 | 100 | 66 | 103 | 81 |
| International Pet. Co. | 100 | x50 | 22¼ | 23½ | 28¾ | 22½ | 22½ | 24¾ | 16⅞ | 24¾ | 13¼ |
| Magnolia Petroleum Co. | 100 | 4.5 | 133 | 133½ | 159 | 133 | 162 | 124 | 166 | 123 |
| National Transit | 12.50 | 16 | 27¼ | 22¾ | 25½ | 22⅝ | 25⅝ | 20⅝ | 29 | 19½ |
| New York Transit | 100 | 3 | *64 | 64½ | 75 | 64½ | 97 | 54½ | 138 | 70 |
| Northern Pipe Line | 100 | 6 | *83½ | *84 | 88 | 80 | 107½ | 72 | 111 | 96 |
| Ohio Oil Co. | 25 | 8 | 63 | 64¼ | 76¼ | 63 | 79½ | 52 | 85⅝ | 48¾ |
| Penn.-Mex. Fuel | 25 | .. | 38 | 39 | 44¼ | 35⅝ | 45⅝ | 27 | 45 | 10½ |
| Prairie Oil & Gas | 25 | †2 | 51½ | 53 | 65½ | 53¾ | 269 | 193 | 272 | 152 |
| Prairie Pipe Line | 100 | 8 | 115½ | 115 | 126 | 106 | 111 | 100 | 117 | 93 |
| Solar Refining Co. | 100 | 15 | *220 | 220 | 259 | 200 | 240 | 170 | 212 | 161 |
| South Penn Oil | 100 | .. | 164 | 165 | 197 | 139 | 176 | 117 | 196 | 100 |
| South West Pa. Line | 100 | 4 | *65 | 65 | 84 | 65 | 89 | 68 | 89 | 66 |
| Southern Pipe Line | 100 | 4 | 83½ | 84 | 103 | 84 | 100 | 80½ | 116 | 87 |
| Standard of Indiana | 25 | 10 | 60 | 61⅜ | 70 | 59⅝ | 69⅝ | 54¼ | 69⅞ | 48¼ |
| Standard of Kansas | 25 | .. | 33⅝ | 33¼ | 46 | 33 | 50½ | 32½ | 56½ | 36½ |
| Standard of Kentucky | 25 | 16 | 115 | 117¼ | 124½ | 115 | 121¼ | 101 | 109½ | 76 |
| Standard of Nebraska | 100 | 20 | 252 | 248 | 270 | 244 | 262 | 198 | 280 | 186 |
| Standard of New York | 25 | 5.6 | 41⅞ | 42¼ | 48⅝ | 41½ | 48 | 37⅜ | 49⅝ | 35½ |
| Standard of Ohio com. | 100 | 10 | 344 | 347 | 369 | 338 | 337½ | 277 | 320 | 270 |
| Swan & Finch com. | 25 | .. | 18 | 20 | 27 | 16 | 28 | 20 | .. | .. |
| Vacuum Oil | 25 | †3.75 | 84½ | 86⅝ | 96½ | 80½ | 83¼ | 56½ | 55½ | 40 |
| Washington Oil | 10 | .. | *30 | x29 | 30½ | 30 | 29 | 25 | 28 | 20¼ |
| **Miscellaneous Stocks** | | | | | | | | | | |
| Cities Service bks. sh. | ‡ | .. | 17⅛ | 17⅜ | 21 | 17 | 19 | 13¼ | 18½ | 12¾ |
| Continental | 10 | 10 | 22⅛ | 25 | 31½ | 21⅞ | .. | .. | .. | .. |
| Gulf Oil Corp. of Pa. | 25 | 6 | 64 | 64½ | 71 | 64 | 67⅜ | 56 | 68¼ | 45¾ |

*Bid, no sales. †In dollars. ‡Six per cent cash and 6 per cent scrip annually. §The figures in this column are kept up to date as far as possible, but are not guaranteed. xCents per share.

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange was as follows:

| | | | | | | |
|---|---|---|---|---|---|---|
| Mar. 30 | 51.28 | Feb. 23 | 58.02 | Jan. 19 | | 54.58 |
| Mar. 23 | 52.90 | Feb. 16 | 55.96 | Jan. 12 | | 55.28 |
| Mar. 16 | 54.14 | Feb. 9 | 58.39 | Jan. 5 | | 53.01 |
| Mar. 9 | 57.73 | Feb. 2 | 59.24 | Dec. 29 | | 51 73 |
| Mar. 2 | 59.56 | Jan. 26 | 56.09 | Dec. 22 | | 50.76 |

| | | |
|---|---|---|
| Expens. deprec. and depl. .... | 48,878,573 | 43,903,356 |
| *Net earnings... | $ 8,456,977 | $ 8,110,660 |

*Before Federal taxes.

Balance sheet of Magnolia Petroleum Co. as of December 31, 1924, compares as follows:

| Assets | 1924 | 1923 |
|---|---|---|
| *Plant, oil wells, equip. etc. ..... | $150,624,147 | $144,245,058 |
| Inventories ..... | 36,737,808 | 35,051,273 |
| Nets. & acct. rec. | 6,326,708 | 12,327,217 |
| Other secur. .... | 201,655 | 183,575 |
| Cash ..... | 1,052,800 | 4,132,327 |
| Stockholds. notes rec. ..... | 1,603,389 | 2,102,424 |
| Adv to sub comp. | 7,802,455 | 6,696,024 |
| Inv. sub cos. .... | 7,853,017 | 7,843,075 |
| Def & unad debits | 626,094 | 785,556 |
| Total ..... | $212,828,073 | $213,366,529 |
| **Liabilities** | | |
| Capital stock ... | $180,247,100 | $180,000,000 |
| Notes pay ..... | 4,035,080 | 324,410 |
| Accts. pay ..... | 4,255,130 | 10,035,716 |
| Accrued int and gen. tax ..... | 1,524,174 | 873,032 |
| Def. credits .... | 91,862 | 307,339 |
| 6% gold bds. ... | 8,501,000 | 8,588,000 |
| Undiv. profits... | 14,173,727 | 13,238,032 |
| Total ..... | $212,828,073 | $213,366,529 |

### Humble Oil & Refining

For year ended December 31, 1924, Humble Oil & Refining Co. reports net profit of $9,835,194 after interest, depreciation and depletion, etc., equivalent to $5.62 a share earned on $43,750,000 outstanding capital stock of $25 par value. This compares with $5,058,192, or $2.89 a share in 1923.

Consoiidated income account for 1924 compares as follows:

| | 1924 | 1923 |
|---|---|---|
| Total profit ..... | $ 48,734,409 | $ 40,356,536 |
| Cost of oper. and interest .. | 28,486,855 | 26,466,641 |
| Net earning .. | $ 20,247,554 | $ 13,889,895 |
| Depletion ..... | 8,476,635 | 2,167,319 |
| Depreciation ... | 935,725 | 6,664,384 |
| Fed. tax ..... | 1,000,000 | ..... |
| Net profit .... | $ 9,835,194 | $ 5,058,192 |
| Dividends ..... | 2,100,000 | 2,100,000 |
| Surplus ..... | $ 7,735,194 | $ 2,958,192 |

*Lors.

### Union Oil Associates

The Union Oil Associates distributed to stockholders on March 23 the 80 per cent stock dividend of the Union Oil Co., which has been held in the treasury since it was declared a few years ago. There has been talk of dissolving the Associates since the Shell Union Oil Corp. disposed of its holdings in Union Oil of California some time ago, but no definite steps have been taken. The Associates, a holding company, was organized to prevent the Shell from securing control of the Union through stock ownership The Shell Union acquired a little over 25 per cent of the capital stock of Union Oil Co. of California from the old Union Oil of Delaware.

## ATTENDANCE OVER 800 AT GEOLOGISTS' MEETING

(Continued from Page 24)

finding structure, so that we may continue to use the old fetich of structural accumulation in its unmodified and faulty form? How else can we construe the application of micro-paleontology, the seismograph and torsion balance, core drilling and water analysis? We are obsessed by "structure" and yet we know that structure is only half the story—perhaps not even half. We discovered that faulted structures at Powell and Mexia produced oil in abundance, and immediately set ourselves at the improvement of technique to locate other faults in this general zone; and some remarkably fine work has been done under difficult circumstances in locating obscure faults. But Bazette and Kosse have been sore disappointments as well as Kaufman County and the entire remainder of east Texas to date.

### Structure Not All

Structure, therefore, even faulted structure, is not the entire story in this region. Where then in the interminable maze of conjecture are we wrong? In the course of a limited time east Texas will be drilled out, attention will be directed to some new locality where faulting perhaps does not play such a prominent role. We shall then most likely promptly drop east Texas with its baffling problems and its riddle will never be solved. And yet there is scarcely a doubt that in all the drilling that has already been done in east Texas, enough reliable data have been unearthed or have gone into the discard to have furnished the answers to all our queries.

"This example is mentioned merely as indicative of our willingness to close our eyes to the mishaps and unpleasantness of the past, and content ourselves with the fortuitous advances we are able to make in the course of the present day mad rush after production. How much longer will we be content to go on in this uncritical and haphazard manner?

"These remarks should not be construed as indicating that the research committee believes it can readily rectify this unhappy tendency. I am attempting to bring tangibly before you the fact that geologists are apt to be opportunists and individualists who are content to make the most of the meager and unsatisfactory data available at the time, and that they have not yet demonstrated any great willingness to work effectively for the general advancement of the science. The research committee can not furnish the machinery of effective cooperation. It can merely advertise to you that it is ready and willing to do a great deal of gratuitous labor for the common good, but unless each of you, individually, give some serious thought to research problems, and bring these problems, with suggestions, to the committee, its hands are to an extent tied and it can not successfully perform the duties it has elected for itself.

### Committee to Help

"The committee needs and must have your practical and moral support, and every individual who will inform himself on the present shortcomings of petroleum geology can, if he wishes, be of great assistance. For instance, there are undoubtedly in this association many men who possess the ability to devise mechanical apparatus, designed to test out in the laboratory some phase of oil geology. It is more than likely that such apparatus may be too intricate or too expensive to be purchased and used individually. The committee will welcome the opportunity to lend its assistance in carrying out any such experiment which meets with its approval.

"A large number of enterprises have engaged the attention of the committee during the past year. Two obstacles have prevented putting several of these proposals into prompt execution—financing, and the difficulty of locating men suited to conduct experimental research. The committee now has under advisement several plans for financing research adequately which should mature during the coming year, but the problem of locating suitable men to conduct researches is ever present.

"The committee, about six months ago, decided that before going to the industry and asking for subscriptions, it would undoubtedly operate as an earnest of good faith if geologists would raise a sum of money among themselves to be spent in the interest of research. A limited number of individuals have been approached for subscriptions and only two have refused to subscribe. Eleven individuals have subscribed $3,950, of which $1,700 has been collected and more is available upon request. In addition to this sum, $1,200 has been subscribed by one individual and $2,500 by another for the prosecution of particular problems. Subscriptions to this fund may be made payable over a period, not to exceed three years, in annual or semi-annual payments. It is earnestly hoped that all members of the association who have not yet subscribed to this fund may do so at this meeting. No effort will be made to encourage individuals to subscribe beyond their means, and those who can afford only small amounts should feel no hesitancy in offering them. The committee invites at least a small subscription from every individual to indicate concurrence in and support of its program.

### Cooperation Needed

"The committee realizes that the total contribution received from geologists will finance only a small part of the work contemplated. Its chief value will be to enlist a more widespread and sympathetic interest in research among the profession. Out of the money thus far subscribed, the sum of $2,800 has been pledged in support of microthermal experimentation relating to the origin of oil. The committee is confident that this work is of very great potential value to oil geology.

"Several other cooperative researches have been tentatively arranged for, but these are of a nature to require little or no financing until the time arrives for the publication of the results. One of these is a critical and comparative study of oil accumulation on structure, the idea being that separate papers should be prepared on a number of fields specially chosen to represent a great diversity of structural conditions. These papers, each constructed in accordance with a carefully prepared outline, are to be placed in the hands of an editor who will digest and review them, calling attention to obvious conditions which may be deduced from the data. Sidney Powers has undertaken to supervise this task, and the committee will aid in securing the necessary material. F. B. Plummer has also provisionally agreed to conduct a study of source beds.

"Tangible results will necessarily be slow in materializing. No problem worth attempting can be solved overnight. The committee is thoroughly reconciled to the inevitable conclusion that it must perform a great amount of labor which will never be brought to the attention of the association, but it is confident that with proper cooperation it can in the course of years make material contributions of both scientific and economic value."

### Growth Handicap

The American Association of Petroleum Geologists has grown so rapidly, and its members attend the annual conventions with such fidelity and in such constantly increasing numbers that many who are considering the problem of future development wonder if it will not be necessary to return to some form of the group or sectional idea, from which the present association sprang. The technical sessions drew such large crowds this year that many who were vitally interested in the subjects discussed could not get near enough to hear all the speakers said. This was due largely to the fact that a majority of the speakers used large maps, charts and lantern slides to illustrate their points and some addressed themselves to these on the screen rather than to their audience, with the result that their voices were deadened and only the fortunate few on the front row could hear what they had to say. Those who spoke clearly and briefly and to the point were enthusiastically rewarded.

A suggestion made by Dr. W. H. Twenhofel that met with considerable approval was for the appointment of a committee of past presidents who would serve in a way as censors, eliminating all superfluous detailed matter from the papers presented at future meetings and keep the authors within their allotted time. More time for presentation as well as for discussion could be allowed if the sessions were divided up in some way, a number of the members feel.

The attention with which most of the papers were received was evident in the discussion which followed. Some of it, in fact, had to be cut short because of time limitations.

An interesting diversion on Friday was the trip through the old El Dorado and Augusta fields, arranged by the Wichita Oil Men's Club and civic clubs cooperating with the Wichita Chamber of Commerce. About 250 visitors made the trip in autos furnished by the citizens of Wichita, leaving the Elks' Hall at 11:30 Friday morning and returning at 4:30 that afternoon. On Lookout Point, near Oil Hill, an excellent box lunch was furnished by the Empire Gas & Fuel Co. Some of the famous leases in the El Dorado Field, including the Trapshooter, Enyart, Cardy and Shumway leases were visited on this trip and the road also led by the deep test now being drilled by the Empire. Two large maps of the area covered were furnished free of charge to each persons making the trip.

Abstracts from the papers read by the geologists at this meeting will be found on page 125 of this issue.

## Sidelights of the Convention

Original humor of the highest type is always one of the outstanding features of a convention of the American Association of Petroleum Geologists, and the meeting just concluded at Wichita, Kans., was no exception.

---

How do you do, Jim Gardner, how do you do,
How do you do, Jim Gardner, how are you?
You've presided with a smile
And we sure do like your style,
To hear you talk we'd walk a mile,
How do you do.

---

How do you do, J. Elmer Thomas, how do you do,
How do you do, J. Elmer Thomas, how are you?
At last you have to work and toil
In your search for shallow oil,
You will have to sweat and boil,
How do you do.

How do you do, how do you do, how do you doodle, doodle, doodle, doodle, do.
We like your bit fat tummy
And we think your's awfully funny
How do you doodle, doodle, doodle, doodle, do.

---

The rock hound (beg pardon, James H.) pebble puppy, or fossil ferret who didn't leave the vaudeville show in the auditorium of the Forum at Wichita, with aching ribs and a face that felt stretched from ear to ear last Friday night has been peacefully buried with fitting ceremonies. He ate too much at the banquet. In fact, if anyone present wasn't a complete wreck when Arthur Truex and Harry Nowlan got through with their black-face act, singing their "How do you do" song, of which the above tender and sentimental lines are a sample, he was ruined by R. B. Whitehead and J. Elmer Thomas, who put on a reminder of last year's convention at Houston, Tex., an act which is good for "Big Time" vaudeville any day. After R. B. sang his famous ballad entitled, "When They Strike Oil on My Daddy's Farm," J. Elmer sat "at the feet of the master," and delivered himself of the following original composition to the tune of "It Ain't Gonna Rain No Mo'.":

Oh, the Conservationists do rave
And rant until they boil.
Then we step out and start some wells
And get a lot more oil.
Chorus:
But, we ain't gonna drill no mo', no mo',
We gotta use greater care.
Howinell can the rock-hounds tell
That a gusher pool is there?
So they fool with that Balcones Fault
And miss it here and there,
Till Colonel Humphreys comes along
And the oil spouts in the air:
Chorus:
But, he ain't gonna drill no mo', no mo',
He's gotta use greater care.
Howinell can the Colonel tell
That a gusher field is there?
When we finished mapping outcrops,
Then we were in a fix
Till the Dutch invaded Texas with
A dozen wiggle-sticks.
Chorus:
But, they ain't gonna bomb no mo', no mo',
They gotta use greater care.
Howinell can the Dutchman tell
That a gusher field is there?

---

Some more of the Nowlan & Truex team's act that will bear exposure in print runs as follows:

How do you do, Marvin Lee, how do you do,
How do you do, Marvin Lee, how are you?
Your committee had to dig

(Continued on Page 116)

# REFINING AND MARKETING

## RATE DECISION AID TO OKLAHOMA REFINER

The recent decision of the Interstate Commerce Commission in lowering freight rates on refined products and fuel oil to Indiana from Group 3 will be of great aid to the Oklahoma refiner in marketing his refinery output, according to opinions expressed by representative refiners during the past week. The reductions on the two classes of products amounts to approximately 7 cents a hundred and this will permit the Oklahoma refiners to market in that territory on a more equal basis with certain Mid-Continent groups and other adjoining refining areas. The decision was made in the case in which the Indiana Chamber of Commerce was the plaintiff.

The decision divides the State of Indiana into two groups of destination, the dividing line being the Pennsylvania railroad extending through Crown Point and Logansport to Anderson, Ind., and the line of the Big Four railroad to Louisville, Ky. In its decision the commission fixed a maximum rate of 42 cents on refined products and 35.5 cents on fuel oil and other products to points within the State on and east of this line and rates of 45.5 and 39 cents to points east of the line.

In addition the commission in its decision said the carriers could if they desired establish smaller groups or grade the rates somewhat with regard to distance observing the rates prescribed as maximum. In making the decision the commission made it clear that it would not influence its decisions to be made in the pending Mid-Continent rate cases (Dockets 15584 and 15585) of more general importance to Mid-Continent refiners. In commenting on this phase the commission said "the establishment of the foregoing rates and bases of rates to Indiana will afford the receivers in that State such relief as may be accorded at this time, and the case will be held open, pending disposition of the cases now pending, for such action at that time as may seem appropriate. Our findings in this report are without prejudice to any different conclusions which may hereafter be reached upon this or any other record."

Regarding the rates to Indiana from North Texas, the commission made no definite finding but indicated that the carriers might make whatever adjustments were necessary to establish the usual rate relationship with Oklahoma. Regarding this the decision said in part: "Under the circumstances no finding will here be made to rates other than Oklahoma but in establishing rates from Oklahoma in conformity with our findings herein defendants will be expected to readjust the rates from the remaining points and groups or origin to Indiana so as to reflect the present differences between the rates from such points and groups and those from Oklahoma.

## CLEVELAND STATIONS ADDED BY PENNZOIL CO.

OIL CITY, Pa., March 28.—With the reelection of officers and directors, the Pennzoil Oil Co. has made arrangements with the Columbia Refining Co., of Cleveland, Ohio, for the handling of Pennzoil prducts. This will add 50 stations in Cleveland and a large number in surrounding territory to the list of those which are selling Pennzoil.

Officers and directors of the Pennzoil Co. were reelected at a meeting in the offices of the company in Rouseville this week. Officers reelected were: C. L. Suhr, president; Louis Walz and E. C. Breene, vice presidents; D. J. Cavanaugh, secretary; M. A. Brewster, treasurer, and F. A. Alcorn, assistant treasurer. Directors were: Messrs. Walz, Breene, Cavanaugh, Brewster, Suhr, E. A. Burch and R. A. Browne.

## IMPROVEMENT AND ENLARGEMENT PROGRAMS AT MANY REFINERIES

Many changes are being made in refinery operations in all parts of the United States according to information obtained by The Oil and Gas Journal from the refiners concerned. Several plants are installing cracking units for the first time and a few are building additional units. Several refineries are being enlarged to handle additional crude and many others have enlargement programs under consideration.

A few refining organizations whose plant operations at the present time are confined to skimming or cracking are installing equipment for the manufacture of lubricating oils and wax. Other improvement programs include the installation of towers, treating processes and other equipment designed either to enlarge the plant output or improve the quality of the products manufactured. Below is given a partial report of the interesting changes in refinery operations recently completed or under way at the present time.

### California

In California, the Sierra Refining Co. is now completing additional units at its Vernon, Cal., plant which will increase its capacity from 10,000 to 12,000 bbls. daily. The plant at present is handling 5,000 bbls of crude daily. Its plant operations are complete.

The Olympic Refining Co. is planning on enlarging the capacity of its topping plant located at Long Beach, Cal. This plant is now running 5,000 bbls. of crude daily to stills. It is owned by the largest steamship company on the West Coast and is operated to assure a supply of fuel oil for the steamships.

The Holly Oil Co. has temporarily shut down its 2,500-bbl. topping plant located at Huntington Beach, Cal. Repairs are being made and new equipment installed so as to produce gasoline of U. S. Motor specifications.

The Perfection Refining Co. is now operating the refinery it owns, located at Hynes, Cal. The plant was formerly leased to the Richfield Oil Co.

### Montana and Wyoming

The Osage-Upton Oil Co. is operating its 300-bbl. skimming plant at Osage, Wyo., part time. The plant is located about 1½ miles from Osage. The company installed the Linton process but is not operating it at the present time. The United States Oil & Refining Co. has temporarily shut down its 750-bbl. plant also located at Osage. The company expects to resume operations soon. The refinery has a Cross cracking plant.

The Snow Cap Oil Co. has a small skimming plant in operation in the Sunburst Field of Montana. The 100-bbl. capacity of the plant to be increased. The Homestake Oil Co., located at Great Falls, Mont., advises that it has discontinued its refining operations.

The 500-bbl. plant located at Great Falls, Mont., which was built by the American Refining Co., has bee sold to a new organization of which C. W. Hay of Great Falls is trustee. The plant is shut down at the present time.

### Texas

At Orange, Tex., the Sycamore Petroleum Co. is considering the erection of a complete refinery. A. M. White, president of the company is the inventor of a process which will be installed at the refinery. The company was reported at one time to have taken over the small lub plant of the Seaboard Oil & Refining Co., located at Orange. Mr. White advises that the plant has not been purchased by his company.

The Peerless Refining Co. is operating a skimming plant at Wortham, Tex., with a capacity of 2,000 bbls. The plant is portable, part of the equipment being supported by railroad cars. This plant was formerly operated in the Luling Field by the Mutual Pipe Line Co.

J. M. Slade & Son are operating a small plant at Sweetwater, Tex. The concern is known as the Sweetwater Refining Co. This plant was built by the Rex Oil & Refining Co. At Denison, Tex., a small plant owned by the Denison Oil Refining Co. is shut down. This concern is now owned by eight residents of Denison who are offering the plant for sale.

### Louisiana

The Louisiana Oil Refining Co. is constructing two additional units of the Tank & Tube process controlled by the Standard Oil Co. of New Jersey at its Bossier, La., plant. The company has other units in operation. The Shreveport Producing & Refining Co. is installing one unit of the Jenkins process at its Shreveport refinery. The unit will be in operation by July. The company also has an installation of the Dubbs process. The Jenkins process is also being installed at the refinery which McCall Brothers, Ltd., are building at Toronto, Ont.

### Kentucky

The Central Producing & Refining Co. expects to enlarge its skimming plant located at Bowling Green, Ky. Equipment will be installed for the manufacture of wax distillates and lubs. The refinery has a skimming capacity of 600 bbls. The Glasgow Oil & Refining Co. is also remodeling and enlarging its 500-bbl. skimming plant at Glasgow, Ky.

At Louisville, Ky., the Louisville Petroleum Co. is completing the construction of a new refinery which will have a capacity of 3,000 bbls. The plant will start operating next month. The company is using the Dubbs cracking process.

### Other Plants

The H. H. Cross Co. of Chicago, may lease the 2,000-bbl. skimming plant of the Omaha Refining Co., located in East Omaha, Iowa. This plant was shut down in November, 1923. The Cross Co. is testing the plant at this time. The plant has an installation of the Cross cracking unit.

The 12,000-bbl. plant of the Sinclair Refining Co. will start operating April 1 according to George H. Taber, a vice president of the company. The construction of this plant was started in 1922. The refinery has the Ison cracking units, a process controlled by the Sinclair company.

The skimming plant built by the Shippers Petroleum Co., located at El Dorado, Ark., is now owned by the Houston Ice & Brewing Association, having been purchased from a receiver. The plant is shut down.

The Hartman cracking process is to be installed at the 300-bbl. skimming plant of the Gustaveson Oil Co., located at Virgin, Utah.

## STATE GASOLINE SALE KILLED IN NEBRASKA

LINCOLN, Neb., March 28.—Efforts of the Nebraska Independent Oil Men's Association to kill the proposed bill authorizing communities to enter the gasoline and coal business proved successful when the State Senate indefinitely postponed the measure by a vote of 23 to 8.

The proposed bill provided that any community could enter the oil or coal business and distribute these products at cost if it believed the oil or coal companies had a monopoly and were making too much profit.

Another bill affecting the oil industry was passed when the Senate approved the House bill providing a tax of 2 cents a gallon on gasoline sales.

## KENTUCKY COMMITTEE FOR GASOLINE TAX

FRANKFORT, Ky., March 28.—As a result of a conference here of all oil companies operating in Kentucky and the State Tax Commission, a cooperative committee of gasoline men has been appointed to assist the commission in the handling of the gasoline tax of 3 cents a gallon being assessed in Kentucky.

The committee will be known as the wholesale dealers' gasoline tax committee and is composed of William A. Stoll, Stoll Oil Refining Co.; W. F. Gardner, Standard Oil Co.; C. C. Pring, Gulf Refining Co.; C. C. Webb, Louisa Co. of Kentucky, and E. H. Hilpp, Kentucky Consumers Oil Co., all of Louisville, and C. E. Cantrill, Indian Refining Co., and A. C. Smith, Great Southern Refining Co. of Lexington, and E. D. Johnson, Kentucky Independent Oil Co., Covington.

The purpose of the committee is to assist the tax commission and to prevent unscrupulous competitors from having an unfair advantage because of the 3-cent tax law.

## MICHIGAN'S OIL MEN PLANNING MAY SESSION

JACKSON, Mich., March 28.—A sectional meeting of the Michigan Independent Oil Men's Association will be held May 7 in the Durant Hotel, Flint, Mich. The meeting is prepared especially for the oil jobbers of the east half of the State but jobbers from any part of the State are invited. The plan for the interchange of coupon books will be discussed and steps taken to make it generally effective thoroughout the State in time for the tourist season.

Another discussion of the meting will be the publicity for the independent oil industry in the State. It is proposed to convince the people of Michigan that there is an independent oil industry and that the independent companies are entitled to the business of their home folks. Some time and attention will be given to the subject of accounting and cost systems.

The recent meetings of the Michigan Independent Oil Men's Association have been largely attended and have been of much good to the industry of the State.

## IMPERIAL CO. TO OPEN OFFICE IN MILWAUKEE

The Imperial Oil Marketing Co. is opening a northwestern sales division office at Milwaukee, Wis., with John M. Mayhall in charge as sales manager. Mr. Mayhall has been in charge of the southeastern sales division for two years with headquarters at Little Rock, Ark.

To succeed Mr. Mayhall at Little Rock, Howard G. Ridley, assistant sales manager in the general office at Tulsa, Okla., is being transferred to Little Rock, to be sales manager there. E. C. Prator will be assistant sales manager at Tulsa to succeed Mr. Ridley.

### TEST GASOLINE "IMPROVERS"

WASHINGTON, D. C., March 28.—Two so-called "gasoline improvers" and one carbon remover were tested during February by the Bureau of Standards. The carbon remover was found to contain about 98 per cent salt. Claims for some of the "fuel dopes" have been modified recently to take advantage of the publicity which has been given to carbon monoxide poisoning. The advertisers claim these "dopes" have the property of reducing materially the amount of carbon monoxide formed.

# Fuel Supply at Gasoline Plants

## Fuel Main Should Have Loop Connection Into Vacuum. Compressed Air for Starting and Engine Cooling Important. Lubrication Discussed

By Frank P. Peterson

**RATIONAL DESIGN AND ARRANGEMENT OF LARGE NATURAL GASOLINE PLANTS**

The accompanying article is the fourth of a series by Frank P. Peterson, widely known engineer, on the subject of "Rational Design and Arrangement of Large Natural Gasoline Plants." In preceding articles Mr. Peterson discussed the selection of plant sites, type of equipment and several phases of plant construction. In this article fuel supply, compressed air for starting engines, water cooling and lubrication. Articles dealing with other phases of plant construction and operation will appear in later issues.

The provision for fuel supply to engines is first in importance. The arrangement will be, for normal supply, out of the plant residue gas at its source. This gives main engines first call on the residue supply, and under any but the most serious derangement, this will always be sufficient. The extreme condition of interruption to fuel supply must be considered, however; such a condition, for instance, as a bad main-line break in the immediate vicinity of the engines, whereby the whole system would be filled with air or a diluted mixture too lean for use as fuel to start up on after a complete shutdown. The fuel main to which the engines are mainfolded should have a loop connection into the vacuum on the field side of the plant suction. A diagram, Figure 7, indicates such connection.

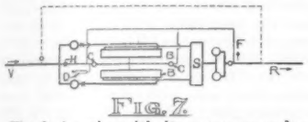


FIG. 7.

The fuel main with its pressure reducing regulators, C C, should, of course, be connected at both ends to fuel line, E, from field residue, R, prior to any other residue service connections. A loop cross-connection having a good type of light weight, lever weighted check valve, H, will make it always possible to start plant up under extreme condition of complete loss of the residue supply by waiting until the wells supply sufficient gas after the application of vacuum to deliver gas at atmospheric pressure, or very slightly in excess, and this condition can and does happen. In the early and small installations, loop connections were always made around plant, as indicated in dotted line for the purpose of by-passing gas direct from the casingheads to field for fuel. But in the large plants of this discussion, this may not be considered necessary. While it is likely that many leases may make no provision for by-pass of their own casingheads to fuel line for lease use, it is remotely probable that a complete and prolonged shutdown of plant will occur. Should this occur, due to fire or tornado of severe proportions and these are about the only possible contingencies, plant forces would be expected to make temporary connections promptly, and in such event the chances are that the fuel supply would be more generally satisfactory for all parties concerned than that of having individual lease cross-connections for the purpose. Openings should be provided for such emergency connection.

### Starting the Engines

The factor second in importance in detail of main power plant to that of fuel provision is the compressed air for starting the engines. This is rightly a function of auxilliary plant equipment, but is frequently made a part of the main engine room equipment in order that the engineers operating may have its closest supervision. However arranged and wherever located, this detail should be made so dependable in character and operation that it can be always relied on to function as it should. The ideal arrangement is motor drive operating a good two stage air compressor. The drive should be under control of an automatic power cutout governed by the desired pressure to be carried in the starting reservoirs. Since the pressures required for starting gas engines are not below 150 pounds per square inch, it is necessary to use exceptional care in the construction and arrangement of the connections from compressor to reservoirs and from reservoirs to engines, not only that leakage losses may be avoided, but that safety may be insured of life and property, and that free and efficient flow of air may be had for the purpose.

Incidents, rather numerous, have occurred in which the main air pressure lines were blown up. This takes place, no doubt, as a sort of spontaneous combustion, the result of the vaporization of the lubricant oil used in the compressor together with heat of friction of the air in the pipe. The disruptions usually occur in the pipe only and at the time of starting an engine. To avoid wire-drawing effect and consequent pressure drop of air for starting at the engine, the practice suggested is for liberal pipe dimension for carrying the air to points of admission to the engines. This will also favor a reduced liability to the occurrence of the ruptures above mentioned. But, where any leakage loss of starting air develops, the increased volume of large pipe provision is to be considered unfavorably, and for that reason lines of more than 2-inch diameter are rarely installed.

### Dimensions

The most feasible plan is to make the lines of liberal dimension, say 3-inch diameter for engines of cylinder bores greater than 14-inch and distances of air conveyance more than 150 feet, and adhere to specifications for tinning of all pipe thread joints and the use of extra heavy fittings throughout where reservoir tanks are to be located, as they usually are, in one bank for the starting of all engines. Another sensible scheme will be to distribute the reservoirs for air starting in such a way as to serve the engines in small groups from short reservoir distances. This will permit the use of much smaller main air service lines, and will permit of a quicker build-up of the pressure of air required when the same drops below the limit required. And, while safety might suggest the location of compressed air mains outside of buildings and underground, this is inadvisable unless the lines are laid in protecting conduit.

In any form or method of air line installation, adequate provision should be made for separating and draining out the oil of compressor lubrication. This is reasonable insurance against the line ruptures above mentioned, but provision should also be made at the extreme end of air line for blow off, whereby such oil can be got rid of by blowing the line occasionally.

Where bad water conditions prevail, and they do in most of the oil field areas, the engine cooling water problem is one for serious consideration. The maintenance of engine service against the condition of water having heavy scaling content will be heavy in expense. The extreme of refinment that design can provide to overcome this difficulty is evaporator capacity to produce distilled water for the make-up requirement, and such provision suggests, as unquestioned, provision also for enclosed circulation of the water. Since evaporators are in no way immune to the ills of deposit of scale in the tubes, the economy of their installation is question by the writer, since a limited amount of water treatment will, in an enclosed cooling system, suffice to overcome the difficulty otherwise encountered and this at a cost probably within that of the upkeep and operation of the evaporator and condenser scheme.

Since gas engines give up to radiation approximately one third of the heat value of the in-put of fuel consumed by them and this chiefly to the water of cooling their cylinders, the following will apply:

$$R=\frac{100V\times 24H}{(T_e-T_i)\ 8.34}$$

in which V is the guaranteed performance of the engines selected in terms of cubic feet of gas consumed per B.H.P. hour, H the heating value, B.T.U. per cubic foot of fuel to be used and $T_e$ and $T_i$ the temperatures respectively of the water entering and leaving the engine jackets, and R the quantity in gallons required to be circulated for 100 horsepower of engine capacity per 24-hour period.

The foregoing data will serve in the selection of pump capacity for engine water circulation. The detail of connecting the water service pipes to the engine cylinders is worthy of the following comment. Open spillways for outflow of the water for each engine cylinder has the advantage of visibility, and the engineer can even stick his finger in the stream to judge its temperature. If the circulation system is entirely enclosed within the engine room, the use of thermometers in the engine cylinder outlets and for each cylinder is probably necessary, about as much so as is a motometer on an automobile. If spillways and funnels are used, regard must be had for the grade in connection layout. If enclosed system is used, no regard need be had for the latter detail, and a reasonable pressure, enough to afford circulation over a cooling tower, may be carried on the stream as it circulates through the cylinders. In the case of water where the scale forming solids are low enough in content that the engine jacket water makeup may be direct from the general supply, this kind of connection will eliminate one whole cycle of operation in the handling of water.

### Cooling Equipment

For the cooling of water in a closed system of circulation there arises the problem of the type of cooling equipment to be provided, and second, the amount required of such equipment as will be selected, and in the terms in which the conventional plant layout will usually be first considered, we are brought back again to the 2-inch pipe. Oberfell and Allen, in their very creditable book, "Natural Gasoline," say we may use 2.83 square feet, or 5.0 lineal feet of the 2-inch pipe surface for the cooling of the water for each brake, ("developed"), horsepower per hour. If we are to use more refined type of equipment, and this is advisable, we may employ an entirely different factor for the surface area required per unit of power to be developed.

Primarily it would appear that the use of small tubes in a simple type of condenser used in this case as a heat exchanger would be the most direct solution of what is not so simple a matter as it seems. There are limiting constructive factors that must be regarded, if success is to be attained in any form of tubular condenser or exchanger. Study of condenser design brings out the following: Maximum theoretical efficiency will be realized with tube bores and wall thickness a minimum and by the use of metals having a maximum conductivity factor. These suggest the selection of tube diameters possibly as low as five-eighths, or one-half inch; tube wall thicknesses as low as five-hundredths of an inch and material of copper. These, under conditions to be met in majority of cases, are obviously unsuited. The difficulty of removal of scale increases with reduction of bore. Tube walls of the thickness mentioned would not withstand the treatment necessary, frequently, for keeping them clean. Copper is too soft. Tube bores of from ¾ to 1 inch wall thicknesses of from .065 to .095 inch and metals of hard brass or cold-drawn seamless steel are more rational. The use of brass tubes of thin wall dimension, (provided not too thin), is well suited for water cooling where the pressure difference is not too great. Since condensers and heat exchangers of good form may be had for this purpose, it will not be of interest to go into detail design of equipment, but it is of interest to note that a surface factor as low as 0.8 square feet per horsepower may be used.

### Lubrication

Lubricating oil may be distributed to the engines through a pipe system. In large installations the cost of such a system will be returned in the saving of oilers labor in from one to two years' time. Such an arrangement calls for two underground tanks and also one overhead. The underground reservoir tanks of as much as 10 gallons capacity per 100 horsepower of engine rating will function as oil storage, and the capacity may be made as much larger as desired. They should be capable of withstanding a safe working pressure of 30 pounds per square inch, whereby the oil may be elevated by displacement to the overhead tank with air or gas. The overhead tank should have a capacity of as much as two gallons per 100 horsepower of engine rating. It should be fitted with a glass column gauge and a closed overflow return to the main oil reservoirs in which is interposed a pop relief valve with a flow capacity at about five pounds per square inch, equal to that of the inflow connection at 30 pounds. Proper arrangement of piping connections will permit of manipulation in the handling of lubricating oil under any and all conditions of operation. Individual connections for filling lubricators and crank cases will reduce the labor time of oiling to almost nothing. Provision must not be overlooked of maintaining the main feed line and branches for oil delivery at such temperatures as will keep it flowing as required. The steam line, where steam heating system is installed, will serve. Where no steam heating is employed, the main jacket water overflow line from engine cylinders will do as well by incasing the oil line with either and insulating together.

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Number Ten of a Series

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WHOLESALE DEPARTMENT

11 Broadway New York

# CHICAGO BUSINESS GOOD; OVERSUPPLY

## Refiners Too Anxious to Produce. Good Weather and Standard Buying Helps Situation. Kerosene Demand Light. Fuel Oil Quiet and Gas Oil Slow. New Gasoline Taxes in Several Cities

By J. B. Waldo

CHICAGO, March 28.—For nearly one week this part of the country has been favored with weather that has been more like May than March. On several days the thermometer has registered new high levels and for the month the average temperature has been about three degrees above normal. At the close of the week it was not quite so warm, but bright and clear. The consumption of gasoline must have been very great in this city and the surrounding territory where the roads are improved. Off the hard roads the mud is still deep but drying fast. The natural inquiry of the trade is why the jobbers' orders have not been more numerous and for larger quantities? Not that the demand has not shown improvement, but that after such a long spell of slow business it has seemed there should be more activity in ordering.

One suggestion being made is that improved transportation facilities have made it possible for the jobber to carry less stock, to do business with smaller supplies because he can replenish them more quickly and with greater certainty than a few years ago.

It is hard to see why this should make much difference in a continuous demand and consumption such as gasoline. In case of a special order such as steel for a building it might make quite a difference in the time that should be allowed between the placing of the order and the receipt of the finished product. The jobber who sells a car of gasoline a week is little concerned how long the cars are in transit between the refinery and his siding so long as he receives his weekly car. Of course, if the demand increased and he needed two instead of one car a week he could place his order for the extra car later if the trains were running promptly and regularly than if he had to allow a couple of days or a week extra for delays and transportation difficulties.

### Doing Excellent Business

It should not be thought that business is not good with the average jobbers. They are doing and have done an excellent business. The trouble is that the supply has promised to be too great for even the increased business being done over last year. It seems at times that each individual refiner acts as if he was to be the one that would have to supply all of the increase in the consumption of gasoline for one year over the year preceding. It is a good deal as if some farmer should make up his mind there was to be an increase in wheat consumption and plant an acreage that would suffice to supply all of the increase without any regard to what neighboring farmers might do. There will be a substantial increase shown in the consumption for the first three months of the year, but it will not be so large it will be necessary for all the refiners to run double to meet the demand.

There has been quite a renewal of optimism in the market. The fine weather has been partly responsible and the action of the Standard Oil Co. (Indiana) in giving some support to the refinery market in Oklahoma, limited as it was in a way, was also of great value to improve the tone of the whole market. These orders were chiefly placed so as to remove the necessity for the smaller refiners without distribution of their own or large storage capacity being forced to enter the market as sellers of distress gasoline. They have not set any quantity or any price. They do not propose to take everything that might be offered but do propose to take gasoline from time to time and to use their purchases to maintain a fair market provided they are given cooperation by the Oklahoma refiners. If the latter persist in increasing their runs to an unwarranted extent the buying will have been without any purpose.

### Immediate Demand

During the first part of the week refiners and marketers reported a considerable increase in orders and a very large increase in inquiries and interest shown generally. On some days the business was really large. Towards the close of the week the demand slackened and the market was quiet but the business had been good and there was positive evidence in that fact that it would be good again. The demand was largely for immediate shipments. Some advance business might have been done at the present market but refiners have been unwilling to quote in advance except at higher prices. The jobbers have, of course, protested against the paying the advanced prices and the bulk of the business has been done with the country jobbers at 10½ cents and quite a lot at 10¾ cents. There has been very little gasoline sold at 11 cents. Some refiners have asked that and higher prices but have not done the business. Among the jobbers prominent in the buying has been the Greenslade Oil Co. of Detroit that asked prices on three train loads, one for prompt and two for early April delivery. At this writing the order is still unplaced although there is a persistent rumor the buyers secured the gasoline at 10 cents. Several of the largest sources of supply quoted 11 cents. Others 10½ cents and one or two 10¼ cents and this was, so far as known, the bottom price quoted. If the company did buy at 10 cents it got a bargain under present conditions especially when the strictness as to specifications and deliveries is considered. It is almost impossible for any but a good sized refiner or a marketer with good refinery connections to undertake to fill these orders. The last order went to the Henry H. Cross Co. of this city. There is an occasional inquiry for 58-450 end point gasoline, but the bulk of the business is for the U. S. Motor grade. The higher tests are in little demand and weak in tone. The 68-70, 360 end point is in no demand at all and a car or two has been offered at distress prices, in fact, below 13 cents. Natural gasoline is also dull and very easy in price.

### Kerosene Demand Light

Kerosene continues to be in light demand and prices weak and sagging. There was some talk of a large export demand but like the domestic demand it has not been yet more than talk. The jobbers seem in no hurry to place any contracts and their takings in the spot market are small. The distillate demand is also very light and prices are somewhat lower. The distillate business is very materially influenced by weather condition and until the Government improves its means of foretelling the weather and can tell us along in July and August what the average temperature will be from October to May month by month there will be little certainty in the business any year there will be possibilities of shortage if the weather man gives us a spell of cold weather or of surplus if the opposite prevails.

### Fuel Oil Quiet

Fuel oil is quiet and easy. There is little new business and buyers are still following the hand to mouth policy. There is no branch of the industry where the possibilities of a change in the prices of Mid-Continent crude are so closely considered as in fuel oil as the bulk of the contracts placed on the basis of the price paid for Mid-Continent crude. Refiners and marketers have quit considering the possibilities of further advances and ask

rather anxiously if prices will hold while the purchasing agents assemble every argument for a lower price. Refiners are not, as a rule, pressing sales, at least generally, but are trying to hold the market. Shipments are slow. The most common quotation is $1.10, but some lots of oil have been sold by refiners at less. Some sales have been made at $1.05 over 60 days. One spot sale was made at $1 of 25 cars. In another instance a buyer bought 10 cars at $1.05 and another 15 at a price that made the 25 cars average the buyer $1.03. This was all for 24-26 refinery fuel oil. There was a report that some large refiner had bought 250 cars of refinery fuel oil but no one in this city was able to confirm the report and it is generally regarded as an attempt to "put one over" on some one, the statement being to the effect that the refiner in question was just about to "dump" on the market 750 cars but changed his mind and bought 250 cars at $1.10 or better.

### Gas Oil Slow

Gas oil is moving slowly, the gas companies being the chief purchasers. The early warm weather has reduced the demand greatly and while the trade calls the market firm at 3¼ cents, sales are reported at one-eight cent less. Many regard the present as a period for "taking in the slack" and that a little later there will be a better demand as the earlier contracts and purchases are absorbed.

### Lubs Unchanged

Lubricating oils show little change. There is a good demand reported by some refiners while others state new business is rather light but plants are well supplied with orders. The jobbing demand is not so well reported as recently as most buyers have placed early orders and have yet had only a small distribution. The demand on the country jobbers for tractor and other farm oils has not yet become of general note. The industrial demand is good, as most plants are still busy on their spring orders and deliveries although there is some slackening in some lines as the first orders are filled and supplementary needs are not yet appearing in the shape of repeat orders. Prices are firm although there is keen competion resulting in some pretty close figuring at times.

### New Gasoline Taxes

Tank wagon markets are unchanged except in the States where the new gasoline taxes are being added to the price to the consumers. South Dakota has increased its gasoline tax; Wisconsin has a new tax of 2 cents a gallon; Oklahoma has increased its tax by a half cent. Indiana has voted to increase its tax 1 cent and all these increases are being added to the tank wagon and service station prices. Illinois is less liable to pass such a tax owing to the very active opposition of the automobile associations and the oil industry but during the week the farmers have come out through their association in favor of a tax on gasoline to take the place of the present highway assessments and this had added to the menace of a gasoline tax in Illinois. The theory is that the tax is not noticed by the motorists but if this is the case it is the only commodity in which higher costs do not decrease consumption. Owing to the rapid increase in the number of cars in use there has been such a steady addition to the quantity of gasoline consumed that many voice the belief price cuts little figure but station keepers and garage men as a rule voice a contrary opinion.

### Discussing Spread

The jobbers in the larger cities and in the towns on the line of hard roads report an excellent gallonage but in the country districts the dibtribution is decreased by deep mud and rough roads. There is quite a bit of price cutting and this can hardly be avoided when the spread between the refinery prices and the tank wagon price is so large as it has been. In a number of points in the territory of the Standard Oil Co. (Indiana) when the selling price of gasoline was 10¾ cents the spread between the laid down price of gasoline and the tank wagon price ranged between 6¼ and 7 cents with 2 cents added to the spread when the gasoline is sold at the filling stations. There are all sorts of figures as to the actual cost of distribution of gasoline and other petroleum products by the average oil jobber. In one case a large company tried its best to make an accurate test for one month of all the costs of doing business and stated it cost 4¼ cents. In some localities and under some conditions this cost is reduced considerably but the larger the company the greater its costs to a certain point. One large local distributor stated its costs were very small when it was doing a compact, conservative business. Encouraged by success it started to increase its business and to its surprise found that when it did twice as much business its percentage profits was reduced fully one-half. It had doubled its business but owing to increased costs to get and handle the extra business had made only half as much money. Many business men forget that sales costs do not as a rule decrease with increase in business. The common trade estimate is that it costs the Standard Oil Co. all of 5 cents to distribute its product. Its overhead charges are very large. In some localities the cost is undoubtedly much greater than 5 cents and in others less assuming this is really the average distributing cost per gallon.

Generally speaking, March has been a good month for all branches of the oil industry in this city at least. Many marketers have done the largest business in their history. Sales have averaged large and profits ample. Some who speculated may have done so at the expense of their profits. Refiners seem to be fairly well satisfied although they want a 12-cent price for gasoline but they have made some money and the jobbers have done better than in the average month of March. All look forward to April with considerable satisfaction and hopefulness.

# SEABOARD REFINERS MAY SOON RETURN TO THE MID-CONTINENT MARKETS

By N. O. Fanning

NEW YORK, March 28.—The past week was a comparatively quiet one in the refined oil markets, with no important changes in tank wagon quotations. In South Carolina the retail price of gasoline was advanced 2 cents to take care of the increase in the State road tax. Total gasoline taxes in the State now amount to 5 cents per gallon, which, added to the tank wagon price of 19 cents per gallon and the retailers profit of 2 cents, brings the price which the consumer has to pay up to 26 cents per gallon, the highest on the Atlantic Seaboard.

The Bayonne refinery quotation on motor gasoline was cut 1½ cents per gallon to 15. This price is said to be nominal, as the principal refiners are not selling spot gasoline to any extent.

Developments in the eastern gasoline situation since the general reduction in the tank wagon market and the export market of 1 cent per gallon have been favorable. Consumption has improved greatly due to rarely good weather conditions, while the position as to stocks and production is said to be sound.

When gasoline prices were advanced in January the eastern market was in the position of being short of the product. Stocks at refineries were unusually low and jobbers were carrying very low inventories. Prices were not on a level which would encourage Mid-Continent and western Pennsylvania refiners to invade this territory on a large scale.

The abrupt advance in prices changed the situation, as might be expected. The present level of tank wagon quotations is out of line with Mid-Continent refinery prices, the margin being in favor of the latter. Inasmuch as eastern refiners and marketers are said not to be buying gasoline on an important scale from Mid-Continent refiners it is natural the latter should seek their own outlet here.

California operators meanwhile seem to be getting the benefit of the high tank wagon quotations on the Atlantic Seaboard, judging from the heavy movement of products through the Panama Canal which started at about the same time the advances took place. In fact stocks on the Pacific Coast had been increasing to the point where relief was urgent. From their viewpoint, therefore, the advance in eastern prices can be looked upon as highly favorable.

So far as the Mid-Continent is concerned, with relation to the Atlantic Seaboard market, the outlook is uncertain, but it is now thought that with continued good consumption and exports. Atlantic Seaboard refiners will have to return to the Mid-Continent market as buyers of gasoline to supplement their California purchases in the near future. Consumption on the Pacific Coast will also be a potent factor, inasmuch as if it increases greatly California refiners will no longer be able to ship gasoline to the Atlantic Coast.

### Crude Outlook Favorable

Although the immediate outlook for gasoline is somewhat uncertain, eastern refiners are turning attention once more to the important problem of the crude supply. Offsetting the failure to find new pools, from the viewpoint of gasoline, is the large supply now held in certain districts together with the ability to increase percentage of output by means of cracking processes.

However, the sharp advances in the crude market in the Mid-Continent Field have not brought out any alarming gain in output. Nor has California, apparently, uncovered any new fields like those developed in 1923. If this situation continues another month or two, still higher crude prices are inevitable, and the gasoline market will just as inevitably follow crude. That is the view held by eastern gasoline marketers, who are now "standing by" to see how things go.

### Refinery Operations

Atlantic Coast refinery operations have speeded up considerably in the past week. Increased output is being supplemented by the imports of gasoline from California. Fuel oil is also being imported on a larger scale from the Pacific Coast and from Mexico.

Why the eastern refiners have been so conservative in recent months with regard to production is a mystery, unless they felt they could buy finished products more cheaply than they could produce for the time being. At least this section cannot be called guilty of overproduction, and the willingness of the Atlantic Coast refiners to buy gasoline in the Mid-Continent and the Pacific Coast in the last two months has been a powerfully constructive market factor, according to close observers of the situation. It is estimated that purchases by them for domestic and export consumption since the first of the year have aggregated 50,000,000 gallons, all of which has not yet been delivered.

### Sinclair Operates Here

The Sinclair Consolidated Oil Corp. has been added to the list of Atlantic Coast refiners by the final completion of its 10,000-bbl. plant at Marcus Hook, Pa. Actual operation is expected to begin April 1. The new plant is equipped with two batteries of high pressure stills using the Isom system of cracking. The plant will manufacture gasoline, kerosene, furnace oil and bunker fuel oil; when fully operating it can turn out about 6,000 bbls. of gasoline daily under the usual pressure still operation and if market conditions require crude can be run down to coke and a still larger gasoline recovery obtained.

While the plant has a rated capacity of 10,000 bbls. daily, it can handle approximately one-third more crude without difficulty. The Sinclair plant at Houston, of which the Marcus Hook plant is a duplicate, excepting the lubricating plant, last month averaged 13,000 bbls. daily, although it is rated at 10,000 bbls. The Marcus Hook plant is designed so it can be operated on coal or oil as fuel. It is equipped with a barrel, compounding plant and machinery for filling cans.

The addition of this plant to the Atlantic Seaboard producing units is expected to strengthen Sinclair's position in the marketing field and will add to the growing competion. As the company has its own tankers and a purchasing organization in the Mid-Continent and Wyoming districts, it is not expected to have any trouble providing the Marcus Hook plant with crude.

### Kerosene Soft

The domestic kerosene trade does not appear to have improved during the past week. Local refiners quote 6½ cents per gallon for prime white with plenty available. Movement into export channels has improved, however, with increased cargo orders from Europe and a brisker movement of cased kerosene to the Far East and South America. As there seems to be a glut of kerosene at refineries, the larger consumption may not have any immediate effect upon prices.

### Gas Oil Unchanged

Gas oil market is firm with no change in prices. Inquiries recently coming to the refiners are for small lots.

Diesel oil continues in good demand. Some refiners are said to be willing to sell 30 gravity for as low as $2.35 per barrel, although the chief factors are quoting nominally at $2.70.

Bunker fuel oil remains unchanged at $1.80 per barrel. The Mexican crude oil market, a factor in local bunker oil quotations, has not witnessed any important change, although the receipts of Mexican oil have shown a large gain in the last few months.

### Lubricants Firm

The lubricating oil market is firm, with competition centering largely in cylinder stocks. Paraffin wax is firm with a good movement into domestic industrial channels.

### Export Market Dull

Another temporary lull has occurred in the export market for all products, the only bright spot being continued good demand for cased oil. Inquiries from Europe, coupled with good consumption in that section of the world, bring reports of large orders to come for gasoline, and it is stated stocks abroad are low.

Exports of kerosene in cases reported during the week amounted to 3,273,120 gallons and gasoline in cases moved to the extent of 1,963,750 gallons. No bulk shipments of either product were reported.

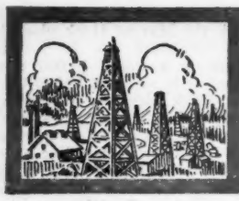
The lubricating oil movement appeas to be in somewhat of a slump. The chief demand now is coming from South America or the Far East, and especially Australia. Africa is also buying on a fairly large scale both in barrels and cases.

The following table shows principal exports of petroleum and petroleum products from New York reported during the past three weeks (figures in gallons unless otherwise stated in parentheses):

| Item. How Shipped— | Week Ended— Mar. 25 | Mar. 18 | Mar. 11 |
|---|---|---|---|
| Gasoline: | | | |
| Bulk | ..... | ..... | 2,812,561 |
| Cases | 1,963,750 | 323,750 | 1,274,050 |
| Kerosene: | | | |
| Bulk | ..... | 229,755 | 4,709,722 |
| Cases | 3,273,120 | 1,243,100 | 3,821,410 |
| Gas oil: | | | |
| Bulk | ..... | ..... | 217,094 |
| Lub. oil: | | | |
| Bulk | ..... | 472,880 | 1,548,839 |
| Barrels | 931,400 | 1,507,650 | 1,268,800 |
| Cases | 293,060 | 73,150 | 155,722 |
| Lub. grease: | | | |
| Barrels (bbls.) | ..... | ..... | 1,175 |
| Cases (No.) | ..... | ..... | 3,222 |
| Pet. asphalt: | | | |
| Bulk (lbs.) | ..... | 1,683,618 | ..... |
| Paraffin wax: | | | |
| Bags (lbs.) | 768,020 | 121,000 | 589,740 |
| Barrels (bbls.) | ..... | ..... | 2,147 |
| Crude oil: | | | |
| Barrels (bbls.) | 6,213 | ..... | 6,775 |

Paraffin wax is moving indifferently, as the chief consuming countries seem to be out of the market for the time being. England has been a good buyer and several sales have been made recently to

(Continued on Page 119)



# REFINERY AND CRUDE PRICES

**Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields**

## GASOLINE AND NAPHTHA

| | Mar. 31 | | Mar. 24 | | Mar. 17 | |
|---|---|---|---|---|---|---|
| **OKLAHOMA (Group 3)—** | | | | | | |
| 50-52 450 end point (Naphtha) | .09¾ | .10 | .09¾ | .10 | .10¼ | .10¾ |
| 56-58 450 end point | .10 | .10¼ | .10 | .10¼ | .10¾ | .11 |
| 58-60 437 end point (U. S. Motor) | .10¼ | .10½ | .10¼ | .10½ | .10¾ | .11 |
| 60-62 400 end point | .11½ | .11¾ | .12 | .12¼ | .13 | .13¼ |
| 64-66 375 end point | .12¾ | .13 | .13 | .13¼ | .14 | .14¼ |
| 68-70 350 end point | .13¼ | .13½ | .13½ | .13¾ | .14½ | |
| **KANSAS—** | | | | | | |
| 58-60 437 end point (U. S. Motor) | .10¼ | .10¾ | .10¼ | .10¾ | .11 | .11¼ |
| **NORTH TEXAS—** | | | | | | |
| 48-52 450 end point (Naphtha) | .09¾ | .10 | .09¾ | .10 | .10¼ | .10½ |
| 50-52 440 end point (Naphtha) | .10 | .10¼ | .10 | .10¼ | .10½ | .10¾ |
| 56-58 450 end point | .09¾ | .10 | .09¾ | .10 | .10¾ | .11 |
| 58-60 437 end point (U. S. Motor) | .10 | .10½ | .10 | .10¼ | .10¾ | .11 |
| 60-62 400 end point | .11¾ | .12 | .12 | .12¼ | .13 | .13¼ |
| 64-66 390 end point | .12½ | .12¾ | .12½ | .12¾ | .13¾ | .14 |
| 64-66 375 end point | .12¾ | .13 | .13 | .13¼ | .14 | |
| 68-70 360 end point | .13¼ | .13½ | .13¼ | .13½ | .14½ | .14¾ |
| **NORTH LOUISIANA—** | | | | | | |
| 56-58 450 end point | .10¼ | .10½ | .10½ | .10¾ | .11½ | .11¾ |
| 58-60 437 end point (U. S. Motor) | .10½ | .10¾ | .11 | .11¼ | .11¾ | .12 |
| 60-62 400 end point | .11½ | .12 | .11½ | .12 | .13½ | .13¾ |
| 64-66 390 end point | .13 | .13¼ | .13¼ | .13¾ | .14¾ | .15 |
| 64-66 375 end point | .13¼ | .13½ | .14 | .14¼ | .15¼ | .15½ |
| **ARKANSAS—** | | | | | | |
| 58-60 450 end point | .10¼ | .10½ | .11 | .11¼ | .11¼ | .11½ |
| 58-60 437 end point (U. S. Motor) | .10½ | .10¾ | .11¼ | .11½ | .11½ | .12 |
| 64-66 375 end point | .13¼ | .13½ | .14 | .14½ | .14½ | .14¾ |
| **ROCKY MOUNTAIN STATES—** | | | | | | |
| *58-60 437 end point (U. S. Motor) | .13¼ | .13½ | .13½ | .13¾ | .15 | .15½ |
| **PENNSYLVANIA—** | | | | | | |
| 52 Naphtha | .12¾ | | .13 | | .14½ | |
| 54 Naphtha | .12¾ | | .13 | | .13¾ | |
| 56 Gasoline | .13 | | .13¼ | | .14 | |
| 58 Gasoline | .13¼ | | .13½ | | .14¼ | |
| 60 Gasoline | .14 | | .14½ | | .15 | |
| 62 Gasoline | .14¾ | | .15½ | | .15½ | |
| 64 Gasoline | .15 | | .15¾ | | .16 | |
| 66 Gasoline | .16 | | .16½ | | .17½ | |
| 68-70 Gasoline | .18 | | .18 | | .18½ | |
| **CALIFORNIA—** | | | | | | |
| 54-56 437 end point (U. S. Motor) domestic | .11 | .11½ | .10 | .10½ | .11 | .11½ |
| **CHICAGO DIST. (Based on Group 3)—** | | | | | | |
| 50-52 450 end point (Naphtha) | .10 | .10¼ | .10 | .10¼ | .11 | .11¼ |
| 56-58 450 end point | .10 | .10¼ | .09¾ | .10 | .11 | .11¼ |
| 58-60 437 end point (U. S. Motor) | .10¼ | .10½ | .10½ | .10¾ | .11 | .11¼ |
| 60-62 400 end point | .11¾ | .12¼ | .12 | .12¼ | .13 | .13½ |
| 64-66 375 end point | .13 | .13¼ | .13 | .13¼ | .14 | .14¼ |
| 68-70 360 end point | .13½ | .14 | .14 | .14¼ | .14¾ | .15¼ |

## NATURAL GASOLINE

| | Mar. 31 | | Mar. 24 | | Mar. 17 | |
|---|---|---|---|---|---|---|
| **OKLAHOMA (Group 3)—** | | | | | | |
| ⌈Grade Double A, 80-87.9, 375 e.p., rec. 90% | .09¼ | .09½ | .09¾ | .10 | .10¼ | .10½ |
| ⌊Grade A, 72-79.9, 375 end point, rec. 90% | .09½ | | .09¾ | .10 | .10½ | |
| ⌈Grade Double B, 84-92, 375 e.p., rec. 95% | .08¼ | | .08¾ | .09 | .09¾ | .10 |
| ⌊Grade B, 76-83.9, 375 end point, rec. 85% | .08¼ | | .08¾ | .09 | .09¾ | .10 |
| Grade C, 80-90, 375 end point, rec. 78% | .07¼ | .07½ | .08 | | .09 | |
| **NORTH TEXAS—** | | | | | | |
| ⌈Grade Double A, 80-87.9, 375 e.p., rec. 90% | .09¼ | .09½ | .09¼ | .09¾ | .10¼ | .10½ |
| ⌊Grade A, 72-79.9, 375 end point, rec. 90% | .09¼ | .09½ | .09½ | .09¾ | .10¼ | .10½ |
| ⌈Grade Double B, 84-92, 375 e.p., rec. 85% | .08 | .08¼ | .08½ | .09 | .09¾ | .10 |
| ⌊Grade B, 76-83.9, 375 end point, rec. 85% | .08 | .08¼ | .08½ | .09 | .09¾ | .10 |
| Grade C, 80-90, 375 end point, rec. 78% | .07¼ | .07½ | .08 | | .09 | |
| **NORTH LOUISIANA—** | | | | | | |
| Grade A, 72-79.9, 375 end point, rec. 90% | .09¾ | .10 | .10¾ | .11 | .11¾ | .12 |
| Grade B, 76-83.9, 375 end point, rec. 85% | .08 | .08½ | .09¾ | .10 | .10½ | .10¾ |
| Grade C, 80-90, 375 end point, rec. 78% | .07¾ | .08 | .09¼ | .09½ | .10 | .10¼ |
| **CALIFORNIA—** | | | | | | |
| 68-80 absorption, 360-390 end point | .13 | .13½ | .12½ | .13 | .13 | .13½ |
| 78-84 compression, 350 end point | .13½ | | .12½ | | .13½ | |
| **CHICAGO DIST. (Based on Group 3)—** | | | | | | |
| ⌈Grade Double A, 80-87.9, 375 e.p., rec. 90% | .09¼ | .09½ | .10¼ | .10½ | .10½ | .10¾ |
| ⌊Grade A, 72-79.9, 375 end point, rec. 90% | .09¼ | .09½ | .10¼ | | .10½ | .10¾ |
| ⌈Grade Double B, 84-92, 375 e.p., rec. 85% | .08¼ | .08½ | .09¼ | .09½ | .10 | .10¼ |
| ⌊Grade B, 76-83.9, 375 end point, rec. 85% | .08¼ | .08½ | .09¼ | | .10 | .10¼ |
| Grade C, 80-90, 375 end point, rec. 78% | .07¾ | | .08½ | .08¾ | .09 | .09¼ |

## MOTOR NATURAL GASOLINE (BLENDS)

| | Mar. 31 | | Mar. 24 | | Mar. 17 | |
|---|---|---|---|---|---|---|
| **OKLAHOMA (Group 3)—** | | | | | | |
| 60-62 450 end point | .10 | | .10 | | .10½ | |
| 64-66 437 end point | .10 | | .10 | | .10½ | |
| 68-70 430-435 end point | .10 | | .10 | | .10½ | |
| **NORTH TEXAS—** | | | | | | |
| 58-62 440 end point | .09¾ | .10 | .10 | | .10½ | |
| 58-60 450 end point | .09¾ | .10 | .10 | | .10½ | |
| **PENNSYLVANIA—** | | | | | | |
| *60-62 | .13½ | | .13¾ | | .15 | |
| *64-66 | .13½ | | .13¾ | | .15 | |
| *66-68 | .13½ | | .13¾ | | .15¼ | |
| *68-70 | .13½ | | .13¾ | | .15¼ | |
| **CHICAGO DIST. (Based on Group 3)—** | | | | | | |
| 60-62 450 end point | .10 | .10¼ | .10 | .10¼ | .10½ | .10½ |
| 64-66 450 end point | .10 | .10¼ | .10 | .10¼ | .10½ | .10½ |
| 68-70 437 end point | .10¼ | .10½ | .10¼ | .10½ | .10½ | .10¾ |

*As Sistersville, W. Va.

## BURNING OIL

| | Mar. 31 | | Mar. 24 | | Mar. 17 | |
|---|---|---|---|---|---|---|
| **KANSAS—** | | | | | | |
| 41-43 water white Kerosene | .04½ | .04¾ | .04¾ | .05 | .05 | |
| **OKLAHOMA (Group 3)—** | | | | | | |
| 41-43 water white Kerosene | .04⅛ | .04⅜ | .04¼ | .04⅜ | .04½ | .04⅝ |
| 42-44 water white Kerosene | .04⅜ | .04½ | .04½ | .04⅝ | .04⅝ | .04⅞ |
| 40-41 prime white Kerosene | .04 | | .04 | | .04¼ | |
| **NORTH LOUISIANA—** | | | | | | |
| 41-43 prime white Kerosene | .04¾ | .05¼ | .05 | .05¼ | .05 | .05¼ |
| 42-44 water white Kerosene | .05¼ | .05½ | .05¼ | .05½ | .05¼ | .05½ |
| **ROCKY MOUNTAIN STATES—** | | | | | | |
| *40-42 water white Kerosene | .07 | .07¼ | .07¼ | .07½ | .07¾ | .08 |
| **NORTH TEXAS—** | | | | | | |
| 41-43 water white Kerosene | .04¼ | .04½ | .04¼ | .04½ | .04½ | .04⅝ |
| 40-42 prime white Kerosene | .04 | | .04 | .04¼ | .04¼ | .04½ |
| 41-43 prime white Kerosene | .04⅛ | .04¼ | .04⅛ | .04¼ | .04¼ | .04⅜ |
| 42-44 water white Kerosene | .04⅜ | .04½ | .04½ | .04⅝ | .04¾ | .04⅞ |
| **ARKANSAS—** | | | | | | |
| 41-43 water white Kerosene | .04¾ | .05 | .04¾ | .05 | .05 | .05¼ |
| 42-44 water white Kerosene | .05 | .05¼ | .05 | .05¼ | .05¼ | .05½ |
| **PENNSYLVANIA—** | | | | | | |
| 43 Kerosene prime white | .06⅝ | | .07 | | .07½ | |
| 45 Kerosene water white | .06¾ | | .07⅛ | | .07⅝ | |
| 46 Kerosene water white | .07⅜ | | .08 | | .08 | |
| 47 Kerosene water white | .08 | | .08¼ | | .08½ | |
| 34 Neutral | .08¼ | | .08¾ | | .08¾ | |
| 34 Sundebloomed Neutral | .09½ | | .10 | | .10 | |
| 36 Miners' Neutral | .07¾ | | .08 | | .08 | |
| 300 Mineral Seal | .07¾ | | .07¾ | | .08 | |
| **CALIFORNIA—** | | | | | | |
| 40-42 water white (high-burning test) | .07½ | .08 | .07½ | .08 | .07½ | .08 |
| Engine distillate, 43-45 445 end point | .08½ | .09 | .08 | .08½ | .08½ | .09 |
| Engine distillate, 42-44 480 end point | .07¾ | .08 | .07 | .07¾ | .07¾ | .08 |
| **CHICAGO DIST. (Based on Group 3)—** | | | | | | |
| 41-43 water white Kerosene | .04¼ | .04⅜ | .04⅜ | .04½ | .04½ | .04⅝ |
| 42-44 water white Kerosene | .04½ | .04⅝ | .04⅝ | .04¾ | .04¾ | .04⅞ |

*Colorado points.

## FUEL OILS

| | Mar. 31 | | Mar. 24 | | Mar. 17 | |
|---|---|---|---|---|---|---|
| **KANSAS—** | | | | | | |
| 24-26 Fuel Oil | 1.20 | 1.25 | 1.25 | 1.30 | 1.30 | 1.35 |
| 32-36 Gas Oil | .03½ | .03⅝ | .03½ | .03⅝ | .03⅝ | .03¾ |
| 38-40 Distillate | .03½ | .03⅝ | .03⅝ | .03¾ | .03¾ | .03⅞ |
| **OKLAHOMA (Group 3)—** | | | | | | |
| 22-26 Fuel Oil (sellers' cars) | 1.07½ | 1.10 | 1.07½ | 1.12½ | 1.12½ | 1.15 |
| 24-26 Fuel Oil (buyers' cars) | 1.05 | 1.10 | 1.07½ | 1.12½ | 1.12½ | 1.15 |
| 24-26 Fuel Oil (sellers' cars) | 1.10 | | 1.10 | 1.12½ | 1.15 | |
| 28-30 Fuel Oil (sellers' cars) | 1.15 | 1.20 | 1.15 | 1.20 | 1.20 | 1.25 |
| 32-36 Gas Oil | .03⅛ | .03¼ | .03¼ | .03⅜ | .03⅜ | .03½ |
| 36-38 Distillate | .03¼ | .03½ | .03½ | | .03⅜ | |
| 38-40 Straw distillate | .03⅜ | .03½ | .03½ | .03⅝ | .03⅝ | .03¾ |
| **NORTH TEXAS—** | | | | | | |
| 24-26 Fuel Oil (sellers' cars) | 1.15 | 1.25 | 1.15 | 1.20 | 1.25 | 1.30 |
| 26-30 Fuel Oil | 1.25 | 1.30 | 1.25 | | 1.35 | |
| 32-36 Gas Oil | .03¼ | .03¾ | .03¼ | .03½ | .03½ | .03⅝ |
| 36-38 Distillate | .03⅜ | .03½ | .03⅜ | .03½ | .03⅜ | .03⅝ |
| 38-40 Straw distillate | .03½ | .03⅝ | .03¾ | .03⅞ | .03¾ | .04 |
| **NORTH LOUISIANA—** | | | | | | |
| 18-20 Fuel Oil | 1.20 | 1.25 | 1.20 | 1.25 | 1.20 | 1.25 |
| 32-36 Gas Oil | .03¼ | .03½ | .03¼ | .03½ | .03½ | .03¾ |
| **ARKANSAS—** | | | | | | |
| 38-40 Distillate | .03⅜ | .03⅞ | .03⅞ | .04 | .04 | .04¼ |
| 32-36 Gas Oil | .03½ | .03⅝ | .03½ | .03⅝ | .03¾ | .03⅞ |
| 22-26 Refinery Fuel Oil | 1.10 | 1.15 | 1.10 | 1.15 | 1.15 | 1.20 |
| **GULF COAST (South Texas)—** | | | | | | |
| Gas Oil | .04¾ | .05 | .04¾ | .05 | .04¾ | .05½ |
| Fuel Oil | 1.65 | 1.70 | 1.65 | 1.70 | 1.65 | 1.70 |
| **PENNSYLVANIA—** | | | | | | |
| 30-34 Fuel Oil | .05¾ | | .05¾ | | .05⅞ | |
| 36-40 Fuel Oil | .06 | | .06 | | .06½ | |
| **CALIFORNIA—** | | | | | | |
| 33-36 Distillate | .04¾ | .05 | .04¾ | .05 | .04¾ | .05 |
| 27-33 Distillate | .04 | .04½ | .04 | .04½ | .04 | .04½ |
| 15-20 Fuel Oil (at tide water) | 1.60 | 1.65 | 1.60 | 1.65 | 1.60 | 1.65 |
| **CHICAGO DIST. (Based on Group 3)—** | | | | | | |
| 24-26 Fuel Oil (sellers' cars, Group 3) | 1.10 | 1.12½ | 1.10 | 1.15 | 1.20 | 1.25 |
| 22-24 (El Dorado) | 1.05 | 1.10 | 1.10 | 1.15 | 1.25 | |
| 18-20 (Smackover) | 1.10 | 1.12½ | 1.15 | 1.20 | 1.20 | 1.25 |
| 32-36 Gas Oil | .03¼ | .03⅜ | .03⅜ | .03½ | .03⅝ | .03¾ |
| 36-38 Distillate | .03⅜ | | .03⅝ | | .03⅝ | |
| 38-40 Straw distillate | .03½ | | .03¾ | | .03¾ | |

## LUBRICATING OILS AND WAX

| | Mar. 31 | | Mar. 24 | | Mar. 17 | |
|---|---|---|---|---|---|---|
| **OKLAHOMA (Group 3)—** | | | | | | |
| Neutrals | | | | | | |
| 70-80 vis., 2½ color, 20-25 cold test | .07 | .07½ | .07 | .07½ | .07 | .07½ |
| 100 vis., 2 color, 20-25 cold test | .08½ | .09 | .08½ | .09 | .08½ | .09 |
| 100 vis., 3 color, 20-25 cold test | .08 | .08½ | .08 | .08½ | .08 | .08½ |
| 150 vis., 3 color, 20-25 cold test | .10½ | .11 | .10½ | .11 | .10½ | .11 |
| 150 vis., 4 color, 20-25 cold test | .10¼ | .10½ | .10¼ | .10½ | .10¼ | .10¾ |
| 180 vis., 4 color, 23-28 cold test | .10¾ | .11¼ | .10¾ | .11¼ | .10¾ | .11¼ |
| 180 vis., 3 color, 23-28 cold test | .11 | .11½ | .11 | .11½ | .11 | .11½ |
| 200 vis., 3 color, 23-28 cold test | .12 | .12½ | .12 | .12½ | .12 | .12½ |
| 200 vis., 4 color, 23-28 cold test | .11¾ | .12¼ | .11¾ | .12¼ | .11¾ | .12¼ |
| 220 vis., 3 color, 25-30 cold test | .12 | .12½ | .12 | .12½ | .12 | .12½ |
| 220 vis., 4 color, 25-30 cold test | .13½ | .14 | .13½ | .14 | .13½ | .14 |
| 240 vis., 3 color, 25-30 cold test | .16 | .16½ | .16 | .16½ | .16 | .16½ |
| 240 vis., 4 color, 25-30 cold test | .15½ | .16 | .15½ | .16 | .15½ | .16 |
| 280 vis., 3 color, 25-30 cold test | .17½ | .18 | .17½ | .18 | .17½ | .18 |
| 280 vis., 4 color, 25-30 cold test | .16½ | .17 | .16½ | .17 | .16½ | .17 |
| Red Neutrals | | | | | | |
| 180 vis., 5 color, 23-28 cold test | .10½ | .11 | .10½ | .11 | .10½ | .11 |
| 180 vis., 6 color, 23-28 cold test | .14½ | .15 | .14½ | .15 | .14½ | .15 |
| 200 vis., 5 color, 23-28 cold test | .11½ | .12 | .11½ | .12 | .11½ | .12 |
| 200 vis., 6 color, 23-28 cold test | .15½ | .16 | .15½ | .16 | .15½ | .16 |
| 220 vis., 5 color, 25-30 cold test | .13½ | .14 | .13½ | .14 | .13½ | .14 |
| 220 vis., 6 color, 25-30 cold test | .17¼ | .17¾ | .17¼ | .17¾ | .17¼ | .17¾ |
| 240 vis., 5 color, 25-30 cold test | .15 | .15½ | .15 | .15½ | .15 | .15½ |
| 240 vis., 6 color, 25-30 cold test | .18¼ | .18¾ | .18¼ | .18¾ | .18½ | .18¾ |
| 280 vis., 5 color, 25-30 cold test | .15½ | .16 | .15½ | .16 | .15½ | .16 |

# REFINERY AND CRUDE PRICES

**Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields**

| | | | | | | |
|---|---|---|---|---|---|---|
| Cylinder Stocks— | | | | | | |
| 180-200 vis., S. R. green, 40-45 cold test | .09½ | .10 | .10 | .10½ | .10½ | .11 |
| 180-200 vis., S. R. green, 40-45 cold test | .09½ | .10 | .09½ | .10 | .10 | .10½ |
| 170-190 dark green, 40-45 cold test | .07½ | | .07½ | | .08 | |
| 600, E filtered | .21¾ | | .21¾ | | .21¾ | |
| 190-200 vis. @ 210 "D" Bright Stock | .36 | | .36 | | .36 | |
| 200-210 vis. @ 210 "E" Bright Stock | .31 | | .31 | | .31 | |
| 150 vis. @ 210 "D" Bright Stock | .32 | | .32 | | .32 | |
| 150 vis. @ 210 "E" Bright Stock | .38 | | .38 | | .38 | |
| Waxes: | | | | | | |
| 124-126 White Crude Scale Wax | .04½ | .04¾ | .04¾ | .05 | .05 | .05¼ |
| PENNSYLVANIA— | | | | | | |
| 150, 3 color | .20½ | | .21¼ | | .21¼ | |
| 180, 3 color | .22½ | | .23½ | | .23½ | |
| 200, 3 color | .24½ | | .25½ | | .25½ | |
| 220, 3 color | .26½ | | .28¼ | | .28¼ | |
| 600, steam refined | .20 | | .20½ | | .22½ | |
| 635, steam refined | .24½ | | .25 | | .26½ | |
| 650, steam refined | .26½ | | .27 | | .28½ | |
| 600, Pennsylvania flash | .34 | | .34 | | .39½ | |
| 630, Pennsylvania flash | .40 | | .40 | | .40 | |
| *550, E filtered | .23 | | .23½ | | .24 | |
| *600, E filtered | .25½ | | .26½ | | .26½ | |
| 600, E filtered | .24½ | | .25½ | | .25½ | |
| 600, D filtered | .31 | | .32 | | .32½ | |
| 550, E filtered | .22½ | | .23 | | .23 | |
| 550, D filtered | .25½ | | .26 | | .27 | |
| Pennsylvania Bright Stock | .37½ | | .39 | | .39 | |
| 122-124 White Crude Scale Wax | .05½ | | .05½ | | .05½ | |
| †124-126 White Crude Scale Wax | .05¼ | | .05⅝ | | .05⅝ | |
| GULF COAST (South Texas)— | | | | | | |
| Zero Black | .07 | .08 | .07 | .08 | .07 | .08 |
| No. 2 color, 100 vis., pale oil | .10½ | .11½ | .10½ | .11½ | .10½ | .11½ |
| No. 2 color, 150 vis., pale oil | .12 | .13 | .12 | .13 | .12 | .13 |
| No. 3 color, 200 vis., pale oil | .15 | .16 | .15 | .16 | .15 | .16 |
| No. 3 color, 300 vis., pale oil | .17 | .18 | .17 | .18 | .17 | .18 |
| No. 3½ color, 500 vis., pale oil | .19 | .20 | .19 | .20 | .19 | .20 |
| No. 3½ color, 750 vis., pale oil | .24½ | .25½ | .24½ | .25½ | .24½ | .25½ |
| No. 4½ color, 1200 vis., pale oil | .27½ | .28½ | .27½ | .28½ | .27½ | .28½ |
| No. 4 color, 2000 vis., pale oil | .31 | .32 | .31 | .32 | .31 | .32 |
| No. 2 plus color, 150 vis., pale filtered | .23½ | | .23½ | | .23½ | |
| No. 2 plus color, 200 vis., pale filtered | .25 | | .25 | | .25 | |
| No. 2¼ minus color, 300 vis., pale filtered | .28½ | | .28½ | | .28½ | |
| No. 2½ color, 500 vis., pale filtered | .32½ | | .32½ | | .32½ | |
| No. 2½ color, 800 vis., filtered | .42½ | | .42½ | | .42½ | |
| No. 5 to 6 color, 200 vis., red oil | .13½ | .14½ | .13½ | .14½ | .13½ | .14½ |
| No. 5 to 6 color, 300 vis., red oil | .15½ | .16½ | .15½ | .16½ | .15½ | .16½ |
| No. 5 to 6 color, 500 vis., red oil | .17½ | .18½ | .17½ | .18½ | .17½ | .18½ |
| No. 5 to 6 color, 750 vis., red oil | .22½ | .23½ | .22½ | .23½ | .22½ | .23½ |
| CALIFORNIA— | | | | | | |
| 130 pale, 2½-3 color | .12 | .12½ | .12 | .12½ | .12 | .12½ |
| 200 vis., 2½-3 color | .15½ | .16 | .15½ | .16 | .15½ | .16 |
| 300 vis., 3 -3½ color | .17 | .17½ | .17 | .17½ | .17 | .17½ |
| 350 vis., 3½-4 color | .18½ | .19 | .18½ | .19 | .18½ | .19 |
| 400 vis., 3½-4 color | .20 | .20½ | .20 | .20½ | .20 | .20½ |
| Red Neutrals: | | | | | | |
| 200 vis., 4½-5 color | .14 | .14½ | .14 | .14½ | .14 | .14½ |
| 300 vis., 5 -6 color | .15 | .15½ | .15 | .15½ | .15 | .15½ |
| 400 vis., 5 -6 color | .17 | .17½ | .17 | .17½ | .17 | .17½ |
| 500 vis., 4½-5 color | .20 | .21 | .20 | .21 | .20 | .21 |
| 500 vis., 6 -6½ color | .18 | .19 | .18 | .19 | .18 | .19 |
| 600 vis., 6½ plus color | .19 | .19½ | .19 | .19½ | .19 | .19½ |

*At Warren, Pa. †At New York City.

Note: Bright stocks are not manufactured commercially on the Pacific Coast.

## NEW YORK DOMESTIC MARKET

| Bayonne Refinery Prices: | Mar. 31 | Mar. 24 | Mar. 17 |
|---|---|---|---|
| U. S. Motor Gasoline, 58-60 437 | .15 | .17 | .18 |
| *Bunker Oil 14-16 Be. | 1.80 | 1.80 | 1.80 |
| *Diesel Oil, 28-30 Be. | 2.70 | 2.70 | 2.70 |
| Furnace Oil, New York City | .10 | .10 | .10 |
| Gas Oil, 32-36 Be. | .06¾ | .06¾ | .06¾ |
| 41-43 Kerosene prime white | .06½ | .06¾ | .06¾ |

*Lighterage, 6.5c a barrel extra.

## NEW YORK EXPORT PRICES

| Motor Gasoline: | Mar. 31 | Mar. 24 | Mar. 17 |
|---|---|---|---|
| 58-60 Be. gravity, in cases | .29.15 | .29.15 | .30.15 |
| U. S. Navy, in bulk | .15 | .15 | .16 |
| Naphtha: | | | |
| 60° F., 59-61 Be. gravity, in bulk | .17¾ | .18¾ | .18¾ |
| 60° F., 63-66 Be. gravity, in bulk | .19 | .20 | .20 |
| 60° F., 66-68 Be. gravity, in bulk | .20½ | .21½ | .21½ |
| Kerosene: | | | |
| Standard white, 40-42 Be. grav., in bulk | .06½ | .06½ | .06½ |
| Standard white, 40-42 Be. grav., in barrels | .13½ | .13½ | .13½ |
| Standard white, 40-42 Be. grav., in cases | .16.9 | .16.9 | .16.9 |
| Water white, 42-44 Be. grav., in bulk | .07½ | .07½ | .07½ |
| Water white, 42-44 Be. grav., in barrels | .14½ | .14½ | .14½ |
| Water white, 42-44 Be. grav., in cases | .17.9 | .17.9 | .17.9 |
| †Lubricating Oils: | | | |
| Cylinder Stock, extra filtered, 600, barrels | .46 | .46 | .46½ |
| Cylinder Stock, light filtered, 600, barrels | .41 | .41 | .40½ |
| No. 1 white Neutral, .878 spec. grav. | .44 | .44 | .43 |
| No. 1 Summer Black, .895 spec. grav. | .20 | .20 | .19 |
| No. 5 Bright Stock, .897 spec. grav. | .49 | .49 | .50½ |
| Special "A" red oil, .897 spec. grav., 170 vis. | .21 | .21 | .21 |
| No. 2 red oil, .903 spec. grav., 212 vis. | .22 | .22 | .22 |
| No. 1 red oil, .905 spec. grav., 265 vis. | .23 | .22 | .23 |
| Polar red oil, .906 spec. grav., 295 vis. | .24 | .24 | .25 |
| Pale oil, "25", .899 spec. grav. | .21½ | .21½ | .20½ |
| Pale oil, "28", .892 spec. grav. | .17 | .17 | .16 |
| Paraffin Wax: | | | |
| 120-122 a.m.p., per lb. | .06¼ | .06¼ | .06¼ |
| 125-127 a.m.p., per lb. | .06¾ | .06¾ | .06¾ |
| 130-132 a.m.p., per lb. | .06¾ | .06¾ | .06¾ |
| 135-137 a.m.p., per lb. | .07½ | .07½ | .07½ |

†All lube prices in barrels.

## LOS ANGELES EXPORT PRICES

| | Mar. 31 | | Mar. 24 | | Mar. 17 | |
|---|---|---|---|---|---|---|
| Kerosene water white | .05½ | .06 | .05½ | .06 | .05½ | .06 |
| U. S. Motor gasoline, 54-56, 437 end point | .10½ | .11 | .10 | .10½ | .10½ | .11 |

## CRUDE OIL PRICES

### CRUDE PRICE CHANGES

March 27—Standard Oil Co. of Louisiana reduced the price of Cotton Valley crude 10 cents.

**Arkansas and North Louisiana**

| | |
|---|---|
| Caddo, 38° and above | $2.05 |
| 35° to 37.9° | 1.95 |
| 32° to 34.9° | 1.85 |
| Below 32° | 1.70 |
| Homer, 35° and above | 1.80 |
| 32° to 34.9° | 1.70 |
| 31° to 32.9° | 1.60 |
| Below 31° | 1.45 |
| Haynesville, 33° and above | 1.70 |
| Below 33° | 1.60 |
| El Dorado, 33° and above | 1.70 |
| Below 33° | 1.60 |
| Bull Bayou, 38° and above | 1.85 |
| 35° to 37.9° | 1.70 |
| 32° to 34.9° | 1.55 |
| Cotton Valley | 1.00 |
| De Soto | 1.90 |
| Crichton | 1.70 |
| Bellevue | 2.00 |
| *Stephens, Ark.: | |
| Below 26° | 1.40 |
| 26° and above | 1.60 |
| Smackover: | |
| Below 25° | 1.00 |
| 25° to 25.9° | 1.10 |
| 26° to 26.9° | 1.20 |
| 27° to 27.9° | 1.25 |
| 28° and above | 1.30 |

*Posted by Atlantic Oil Producing Co.

**Wyoming and Montana**

| | |
|---|---|
| Rock Creek (Wyo.) | 2.00 |
| Salt Creek | 1.60 |
| Big Muddy | 2.00 |
| Mule Creek | 1.50 |
| Grass Creek (light) | 2.15 |
| Elk Basin | 2.15 |
| Lance Creek | 2.15 |
| Osage | 2.15 |
| Cat Creek (Mont.) | 2.15 |
| Sunburst (Mont.) | 1.40 |
| Lost Soldier | 1.28 |
| Greybull and Torchlight | 2.00 |
| Hamilton Dome | 1.60 |
| Hogback, N. Mex. | 2.20 |

Lost Soldier and Lander based on contracts.

**Oklahoma, Kansas, North and Central Texas**

Prairie Oil & Gas Co. and other major purchasing companies, except as noted:

| | |
|---|---|
| Below 30° | 1.35 |
| 30° to 32.9° | 1.55 |
| 33° to 35.9° | 1.80 |
| 36° to 38.9° | 2.00 |
| 39° to 41.9° | 2.25 |
| 42° and above | 2.35 |
| Sinclair Crude Oil Purchasing Co.— | |
| 39° to 41.5° | 2.25 |
| 41.6° and above | 2.35 |
| Magnolia Petroleum Co.: | |
| Below 28° | 1.00 |
| 28° to 30.9° | 1.35 |
| 31° to 32.9° | 1.55 |
| Corsicana light | .200 |
| Corsicana heavy | 1.00 |
| Mexia and Wortham | 2.00 |
| **Humble Oil & Refining Co.** | |
| Powell, Currie, Richland | 2.00 |
| Mexia and Wortham | 2.00 |
| Moran crude: | |
| Below 30° gravity | 1.35 |
| 30° to 32.9° | 1.55 |
| 33° to 35.9° | 1.80 |
| 36° and above | 2.00 |

Ranger and North Texas, same as Prairie.

**Gulf Coast**

| | |
|---|---|
| Grade A | 2.00 |
| Grade B | 1.75 |
| Luling (based on contracts) 90c and | 1.15 |
| Laredo (Magnolia Petroleum Co.) | .85 |
| Rockdale-Minerva (Milam County) | 1.25 |
| Calliham (Live Oak-McMullen) | 1.15 |
| Webb, Jim Hogg, Zapata | 1.00 |
| *High Island | 1.20 |

*Posted by Sun Oil Co.

***Somerset**

| | |
|---|---|
| Below 30° | 1.25 |
| 30° to 32.9° | 1.35 |
| 33° to 35.9° | 1.80 |
| 36° to 38.9° | 1.95 |
| 39 to 41.9° | 2.10 |
| 42° and above | 2.35 |

*Posted by Grayburg Oil Co.

**California**

| | |
|---|---|
| 14° to 19.9° | 1.25 |
| 20° to 20.9° | 1.27 |
| 21° to 21.9° | 1.30 |
| 22° to 22.9° | 1.33 |
| 23° to 23.9° | 1.36 |
| 24° to 24.9° | 1.40 |
| 25° to 25.9° | 1.44 |
| 26° to 26.9° | 1.48 |
| 27° to 27.9° | 1.52 |
| 28° to 28.9° | 1.56 |
| 29° to 29.9° | 1.60 |
| 30° to 30.9° | 1.64 |
| 31° to 31.9° | 1.68 |
| 32° to 32.9° | 1.72 |
| 33° to 33.9° | 1.76 |
| 34° to 34.9° | 1.80 |
| 35° and above | 1.85 |
| Rosecrans-Athens Field, only: | |
| Below 35.9° gravity, same as other fields. | |
| 36° to 36.9° | 1.92 |
| 37° to 37.9° | 2.00 |
| 38° to 38.9° | 2.08 |
| 39° to 39.9° | 2.16 |
| 40° to 40.9° | 2.24 |
| 41° to 41.9° | 2.32 |
| 42° and above | 2.40 |

**Eastern States**

| | |
|---|---|
| Penna Grade Oil in New York Transit Lines | 3.65 |
| Bradford District Oil in National Transit Lines | 3.65 |
| Penna Grade Oil in National Transit Lines | 3.55 |
| Penna Grade Oil in Southwest Pa. Pipe Lines | 3.55 |
| Penna Grade Oil in Eureka Pipe Line Lines | 3.50 |
| Penna Grade Oil in Buckeye Pipe Lines | 3.40 |
| Cabell Grade Oil in Eureka Pipe Line Lines | 2.20 |
| Corning Grade Oil in Buckeye Pipe Line Lines | 2.25 |
| Somerset Medium Oil in Cumberland Pipe Line Lines | 2.30 |
| Somerset Light Oil in Cumberland Pipe Line Lines | 2.45 |
| Ragland Grade Oil in Cumberland Pipe Line Lines | 1.20 |
| Lima | 2.23 |
| Wooster | 2.25 |
| Illinois | 2.02 |
| Indiana | 2.03 |
| Princeton | 2.02 |
| Plymouth | 1.55 |
| Waterloo | 1.10 |
| †Oil Springs, Canada | 2.95 |
| †Petrolia, Canada | 2.88 |
| *Western Kentucky, 36° and above | 2.05 |
| *Western Kentucky, 33° to 35.9° | 1.95 |
| *Western Kentucky, 32.9 and below | 1.85 |
| Cumberland, Barren and Monroe Counties (Kentucky), (Paragon Development Co.) | 2.45 |

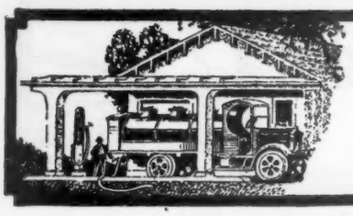
†Plus Government bounty of 26½c.

*Prices for Warren, Allen, Hancock, Simpson and Ohio Counties by Indian Refining Co.

**Mexican Crude**

| | |
|---|---|
| *Tuxpam (f.o.b. Mexican ports) | 1.35 |
| †Panuco (f.o.b. Mexican ports) | 1.25 |
| Tuxpam (New York) | 1.90 |
| Panuco (New York) | 1.76 |

*Plus 33.00c tax. †20.00c tax.



# TANK WAGON MARKETS

Tank wagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns, March 31

## ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

### STANDARD OIL CO. (INDIANA)

**Main Service Station Price**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| Chicago Dist.— | | | | |
| †100 gals. or more | 18.0 | 21.0 | ... | 12.0 |

Tank wagon prices on April 19, 1922; g. up 1½c; May 8, g. up 1c; June 27, both up 1c; July 19, g. down 2c, k. down 1c; Oct. 10, g. down 2c; Oct. 21, g. down 1c; Feb. 5, 1923, g. up 1c; Feb. 30, g. up 1c; Aug. 14, g. down 6.6c; Oct. 4, k. down 1½c; Nov. 10, g. down 1.4c; Dec. 29, g. up 2c; Jan. 12, 1924, g. up 2c, k. up 1c; Feb. 5, g. up 2c, k. 1c; July 18, g. down 1c; July 30, g. and k. down 1c; Sept. 12, g. down 2c; Jan. 23, 1925, g. up 1c; Jan. 26, g. up 1c; Jan. 31, g. up 1c; Jan. 26, g. up 1c; Jan. 31, g. up 1c; Feb. 12, g. up 2c, k. up 1c.

| | | | | |
|---|---|---|---|---|
| Decatur, Ill. | 18.2 | 20.2 | ... | 12.5 |
| East St. Louis | 17.1 | 19.35 | ... | 11.6 |
| Joliet | 18.4 | 20.4 | ... | 12.7 |
| Peoria | 18.2 | 20.2 | ... | 12.5 |
| Quincy | 18.2 | 20.2 | ... | 12.3 |
| Davenport, Ia. | 18.5 | 20.5 | ... | 12.9 |
| Des Moines | 18.5 | 20.5 | ... | 12.9 |
| Keokuk | 18.5 | 20.5 | ... | 12.9 |
| Sioux City | 18.0 | 20.0 | ... | 12.5 |
| Duluth, Minn. | 19.5 | 21.5 | ... | 13.6 |
| Minneapolis | 19.2 | 21.2 | ... | 13.6 |
| La Crosse, Wis. | 19.2 | 21.2 | ... | 13.4 |
| Milwaukee | 18.1 | 20.1 | ... | 12.3 |
| Madison | 18.3 | 20.3 | ... | 12.5 |
| Detroit, Mich. | 20.8 | 22.8 | 2.0 | 13.2 |
| Grand Rapids | 20.7 | 22.7 | 2.0 | 13.1 |
| Saginaw | 20.9 | 22.9 | 2.0 | 13.3 |
| Evansville, Ind. | 20.0 | 22.0 | 2.0 | 12.5 |
| Fort Wayne | 20.4 | 22.4 | 2.0 | 12.9 |
| Indianapolis | 20.2 | 22.2 | 3.0 | 12.7 |
| South Bend | 20.4 | 22.4 | 2.0 | 12.9 |
| Fargo, N. D. | 20.9 | 22.9 | 1.0 | 15.6 |
| Huron, S. D. | 23.0 | 25.0 | 3.0 | 14.1 |
| Sioux Falls | 22.5 | 24.5 | 3.0 | 13.6 |
| *Kansas City, Mo. | 20.9 | 22.9 | 3.0 | 11.3 |
| *Springfield | 20.8 | 22.8 | 3.0 | 12.2 |
| *St. Louis | 19.6 | 21.9 | 2.5 | 12.0 |
| *St. Joseph | 20.0 | 22.0 | 2.5 | 11.9 |
| Wichita, Kans. | 17.8 | 19.8 | ... | 10.8 |
| Bartlesville, Okla. | 19.9 | 21.9 | 3.0 | 10.9 |

*State tax is 2c. Remainder is city tax.

†Tank wagon price on less than 100 gallons, 19.0.

### ATLANTIC COAST DISTRICT

**Standard Oil Co. (New Jersey)**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| Newark, N. J. | 18.0 | 20.0 | ... | 13.0 |
| Atlantic City | 18.0 | .... | ... | 13.0 |
| Annapolis, Md. | 21.0 | .... | 2.0 | 12.0 |
| Baltimore | 20.0 | 22.0 | 2.0 | 11.0 |
| Cumberland | 21.0 | 23.0 | 2.0 | 12.5 |
| Washington, D. C. | 20.0 | 22.0 | 2.0 | 12.5 |
| Norfolk, Va. | 22.0 | 24.0 | 3.0 | 13.5 |
| Petersburg | 22.0 | .... | 3.0 | 13.5 |
| Danville | 22.0 | .... | 3.0 | 13.5 |
| Richmond | 22.0 | 24.0 | 3.0 | 13.5 |
| Roanoke | 22.0 | 24.0 | 3.0 | 13.5 |
| Keyser, W. Va. | 20.0 | .... | 2.0 | 13.5 |
| Charleston | 19.0 | 21.0 | 2.0 | 13.5 |
| Parkersburg | 19.0 | 21.0 | 2.0 | 13.5 |
| Wheeling | 19.0 | 21.0 | 2.0 | 13.5 |
| Charlotte, N. C. | 23.0 | 25.5 | 4.0 | 14.5 |
| Hickory | 23.0 | .... | 4.0 | 14.5 |
| Mt. Airy | 23.0 | .... | 4.0 | 14.5 |
| Salisbury | 23.0 | .... | 4.0 | 14.5 |
| Charleston, S. C. | 24.0 | 26.5 | 5.0 | 15.0 |
| Columbia | 24.0 | 26.5 | 5.0 | 15.0 |

### PENNSYLVANIA-DELAWARE AND PART NEW ENGLAND

**Atlantic Refining Co.**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| *Pittsburgh, Pa. | 19.0 | 24.0 | ... | 14.0 |
| *Philadelphia | 19.0 | 24.0 | ... | 14.0 |
| *Scranton | 19.0 | 24.0 | ... | 14.0 |
| **Allentown | 19.0 | 24.0 | ... | 14.0 |
| *Altoona | 19.0 | 24.0 | ... | 14.0 |
| *Erie | 19.0 | 24.0 | ... | 14.0 |
| Dover, Del. | 21.0 | 23.0 | 2.0 | 14.0 |
| Wilmington | 21.0 | 24.0 | 2.0 | 14.0 |
| Springf'ld, Mass. | 20.0 | 24.0 | ... | 13.0 |
| Worcester, Mass. | 20.0 | 24.0 | ... | 13.0 |
| Boston | 20.0 | 24.0 | ... | 13.0 |
| Providence, R. I. | 20.0 | 24.0 | ... | 13.0 |
| Hartford, Conn. | 21.0 | 25.0 | 1.0 | 12.0 |
| New Haven Conn. | 21.0 | 25.0 | 1.0 | 13.0 |

*Pennsylvania tax of 2 cents is collected by the dealer and paid by him direct to the State.

### CENTRAL SOUTH DISTRICT

**Standard Oil Co. (Louisiana)**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| New Orleans | 19.5 | 21.5 | 2.0 | 11.0 |
| Alexandria | 19.5 | 21.5 | 2.0 | 13.0 |
| Baton Rouge | 18.0 | 20.0 | 2.0 | 11.5 |
| Lake Charles | 19.5 | 21.5 | 2.0 | 13.0 |
| Shreveport | 19.5 | 21.5 | 2.0 | 13.0 |
| Memphis, Tenn. | 20.0 | 22.0 | 3.0 | 14.0 |
| Chattanooga | 21.5 | 23.5 | 3.0 | 14.5 |
| Knoxville | 22.5 | 24.5 | 3.0 | 15.0 |
| Nashville | 21.5 | 23.5 | 3.0 | 13.5 |
| Bristol | 22.0 | 24.0 | 3.0 | 13.5 |
| Little Rock, Ark | 22.0 | 24.0 | 4.0 | 11.0 |

### SOUTHERN DISTRICT

**Standard Oil Co. (Kentucky)**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| Atlanta, Ga. | 24.0 | 27.0 | 3.0 | 13.0 |
| Augusta | 24.0 | 27.0 | 3.0 | 15.0 |
| Macon | 24.0 | 27.0 | 3.0 | 14.5 |
| Savannah | 22.0 | 25.0 | 3.0 | 13.0 |
| Birmingham, Ala. | 22.0 | 25.0 | 2.0 | 14.5 |
| Mobile | 21.0 | 24.0 | 2.0 | 12.5 |
| *Montgomery | 24.0 | 26.0 | 3.0 | 15.5 |
| Clarksdale, Miss. | 22.0 | 25.0 | 3.0 | 12.0 |
| Jackson | 22.0 | 25.0 | 3.0 | 10.0 |
| Natchez | 21.5 | 24.5 | 3.0 | 11.5 |
| Vicksburg | 21.5 | 24.5 | 3.0 | 11.5 |
| Jacksonville, Fla. | 22.0 | 25.0 | 3.0 | 13.0 |
| Miami | 24.0 | 27.0 | 3.0 | 14.5 |
| Pensacola | 22.0 | 25.0 | 3.0 | 13.5 |
| Tampa | 22.0 | 25.0 | 3.0 | 13.0 |
| Lexington, Ky. | 22.0 | 25.0 | 3.0 | 14.0 |
| Covington | 20.0 | 23.0 | 3.0 | 14.0 |
| Louisville | 22.0 | 24.0 | 3.0 | 12.0 |

*In addition to the State tax of 2 cents on gasoline, Montgomery has city tax of 1 cent on gasoline and ½ cent on kerosene.

### SOUTHWESTERN DISTRICT

**Magnolia Petroleum Co.**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| Dallas, Texas | 17.0 | 21.0 | 1.0 | 12.0 |
| Fort Worth | 17.0 | 21.0 | 1.0 | 12.0 |
| Houston | 17.0 | 21.0 | 1.0 | 12.0 |
| San Antonio | 17.0 | 20.0 | 1.0 | 12.0 |
| El Paso | 19.0 | 22.0 | 1.0 | 13.0 |
| Muskogee, Okla. | 19.5 | 22.5 | 3.0 | 12.0 |
| Oklahoma City | 19.5 | 22.5 | 3.0 | 12.0 |
| Tulsa | 19.5 | 22.5 | 3.0 | 12.0 |
| Ft. Smith, Ark. | 21.5 | 24.5 | 4.0 | 12.0 |
| Little Rock | 22.0 | 24.0 | 4.0 | 11.0 |
| Texarkana | 19.0 | 22.0 | 1.0 | 12.0 |

### ROCKY MOUNTAIN DISTRICT

**Continental Oil Co.**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| Casper, Wyo. | 20.0 | 22.0 | 1.0 | 13.0 |
| Cheyenne | 21.5 | 23.5 | 1.0 | 14.5 |
| Albuquerque, N. M. | 26.5 | 29.5 | 3.0 | 16.5 |
| Salt Lake, Utah | 23.0 | 25.0 | 2.5 | 18.0 |
| Denver, Colo. | 21.0 | 23.0 | 2.0 | 14.5 |
| Pueblo | 21.0 | 23.0 | 2.0 | 14.5 |
| Butte, Mont. | 23.0 | 25.0 | 2.0 | 16.0 |
| Helena | 25.0 | 27.0 | 2.0 | 17.0 |
| Boise, Idaho | 24.5 | 26.5 | 3.0 | 20.0 |

### NEW YORK AND PART OF NEW ENGLAND DISTRICT

**Standard Oil Co. (New York)**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| Albany, N. Y. | 20.0 | .... | ... | 13.0 |
| *New York | 20.0 | .... | ... | 13.0 |
| Buffalo | 20.0 | .... | ... | 12.0 |
| Rochester | 20.0 | .... | ... | 13.0 |
| Syracuse | 20.0 | .... | ... | 12.0 |
| Boston, Mass. | 20.0 | .... | ... | 13.0 |
| Providence, R. I. | 20.0 | .... | ... | 13.0 |
| Augusta, Me. | 21.0 | .... | 1.0 | 13.0 |
| Manchester, N. H. | 22.0 | .... | 2.0 | 13.0 |
| Burlington, Vt. | 21.0 | .... | 1.0 | 13.0 |

*Price in steel barrels.

Note: Standard Oil Co. of New York does not generally quote service station price in its territory. In most cases the service station price is 2 or 3 cents higher than tank wagon price.

### PACIFIC COAST DISTRICT

**Standard Oil Co. of California**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| San Francisco | 17.0 | 20.0 | 2.0 | 16.5 |
| Los Angeles | 15.5 | 18.5 | 2.0 | 16.5 |
| Fresno | 17.5 | 20.5 | 2.0 | 19.5 |
| Reno, Nev. | 20.5 | 23.5 | 2.0 | 19.0 |
| Portland, Ore. | 18.0 | 21.0 | 3.0 | 16.5 |
| Seattle, Wash. | 17.0 | 20.0 | 2.0 | 16.5 |
| Tacoma | 17.0 | 20.0 | 2.0 | 16.5 |
| Spokane | 21.0 | 24.0 | 2.0 | 20.5 |
| Phoenix, Ariz. | 23.0 | 26.0 | 3.0 | 21.5 |

### OHIO

**Standard Oil Co. (Ohio)**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| All Ohio points | 18.5 | 20.5 | ... | 15.0 |

### NEBRASKA

**Standard Oil Co. (Nebraska)**

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incids tax of | Tank wagon |
| Omaha | 16.0 | 18.0 | ... | 12.5 |
| Crawford | 19.0 | .... | ... | 13.25 |
| McCook | 19.75 | 21.75 | ... | 14.0 |
| Norfolk | 18.75 | 20.75 | ... | 13.0 |
| North Platte | 19.75 | 21.75 | ... | 13.75 |
| Scotts Bluff | 19.25 | 21.25 | ... | 13.25 |

### TANK WAGON CHANGES

March 18—The Continental Oil Co. advanced the tank wagon price of gasoline at Albuquerque, N. M., 2 cents a gallon to cover an increase in the State tax from 1 to 3 cents.

March 24—Standard Oil Co. of New Jersey advanced the tank wagon price in South Carolina 2 cents to cover a 2-cent increase in tax.

March 25—Standard Oil Co. of Indiana advanced the tank wagon price of gasoline at Bartlesville a half cent to cover a ½-cent increase in the State tax.

March 25. — Magnolia Petroleum Co., advanced the tank wagon and service station price of gasoline in Oklahoma a half cent to cover the increase in the State sales tax from 2½ to 3 cents.

## NO CHANGE IN U. S. MOTOR GASOLINE

(Continued from Page 20)

With no large reduction in refinery operations the market trend for the month obviously depends on the attitude of the buyers. Substantial purchases will be necessary throughout the month to prevent certain refiners from dumping both their current product and gasoline stocks on the market as they have in the past. There are numerous reports as to prospective buying by large companies both for export and domestic shipment. If half of these purchases materialize the Mid-Continent gasoline market will at least continue firm over the month.

The Standard Oil Co. of Indiana whose purchases last week stopped further declines in the domestic motor grades, had not reentered the market this week up to Tuesday. There is a general feeling that the company will again enter the market before the end of the week relieving the refiners who are especially anxious to move their gasoline. At least one other large company is said to have made a survey of the gasoline situation in the Mid-Continent Field with the intention of making a large purchase if conditions justify.

All are watching developments in the crude market. With the refined market in its present status any indication of a weakness in the crude and gasoline tank wagon markets pointing to a general decline in prices will be reflected in a further collapse in prices for refined products.

### Gasolines and Naphtha

The higher gravity grades of gasoline suffered a decline in price. Naphtha as well as 56-58, 450 and 58-60, 437 (U. S. Motor) held fairly steady at last week's price schedule. The 68-70, 350 grade, perhaps was the hardest hit during the week with little or no movements. While in some quarters a weakening tendency might have been felt for U. S. Motor gasoline, few sales were made under 10¼ cents.

What 60-62, 400 gasoline was sold during the week moved for 11½ to 11¾ cents with some resale material at a lower price. The 64-66, 375 was selling for 12½ cents as bottom with a range to 13 cents. The 68-70, 350 gasoline was offered to trade at 13¼ to 13½ cents, a quarter of a cent drop from the figures of last week.

### Kerosenes and Distillates

While the market on 41-43 water white kerosene, was 4⅛ to 4⅜ cents and that of 42-44 water white 4⅜ to 4½ cents, some kerosene moved for as low as 4 cents. The 40-41 prime white kerosene brought 4 cents. The market on the kerosene in North Texas was a trifle stronger, there being but little slipping of the price of that product there during the week. There was little demand for distillates, any amount of 36-38 being available for 3¼ to 3½ cents. Straw distillates for 3⅜ to 3½ cents.

### Natural Gasolines and Blends

Although the latter part of last week natural gasoline makers and blenders were somewhat more optimistic, no evidence to support their hopes for a better market and conditions came to light Monday and Tuesday. On the other hand a still further weakening of the price structure of natural gasoline was felt in all areas. Natural gasoline makers expressed belief the supply of straight run gasoline would be diminished in the near future and possible increased demands for blended products would call on the natural gasoline reserves. The price range in Oklahoma Tuesday was 9¼ to 9½ cents for grade double A, 9½ cents tor A, 8¼ cents for B and Double B, and 7¼ to 7½ cents for C. The Oklahoma blend market remained unchanged at 10 cents although there was a reduction of a quarter of a cent on Texas grades.

### Fuel and Gas Oils

While fuel oil prices held fairly steady during the week, 32-36 gas oil slipped from 3¼ to 3⅛ cents, with little demand for the latter product. What will happen to the fuel oil market has been a matter of speculation among the refiners, some as previously stated predicting the price would go to $1 a barrel. However, the market on 24-26 fuel oil stood unchanged at $1.10, and 22-26 at $1.07½ to $1.10.

### Wax and Lubricants

Wax went begging on the market during the week, only one or two inquiries being received and no sales reported. The wax was offered by a large Oklahoma manufacturer at 4½ to 4¾ cents. One bid of 4 cents was reported. There was no change in lubricants with a fair business in some grades reported. A slight change in the price of cylinder stocks was felt during the week with the grade 180-200 viscosity, S. R. green, 40-45 cold test selling for 9½ to 10 cents, a decrease of a half cent.

## CALIFORNIA MARKETS ARE AGAIN NORMAL

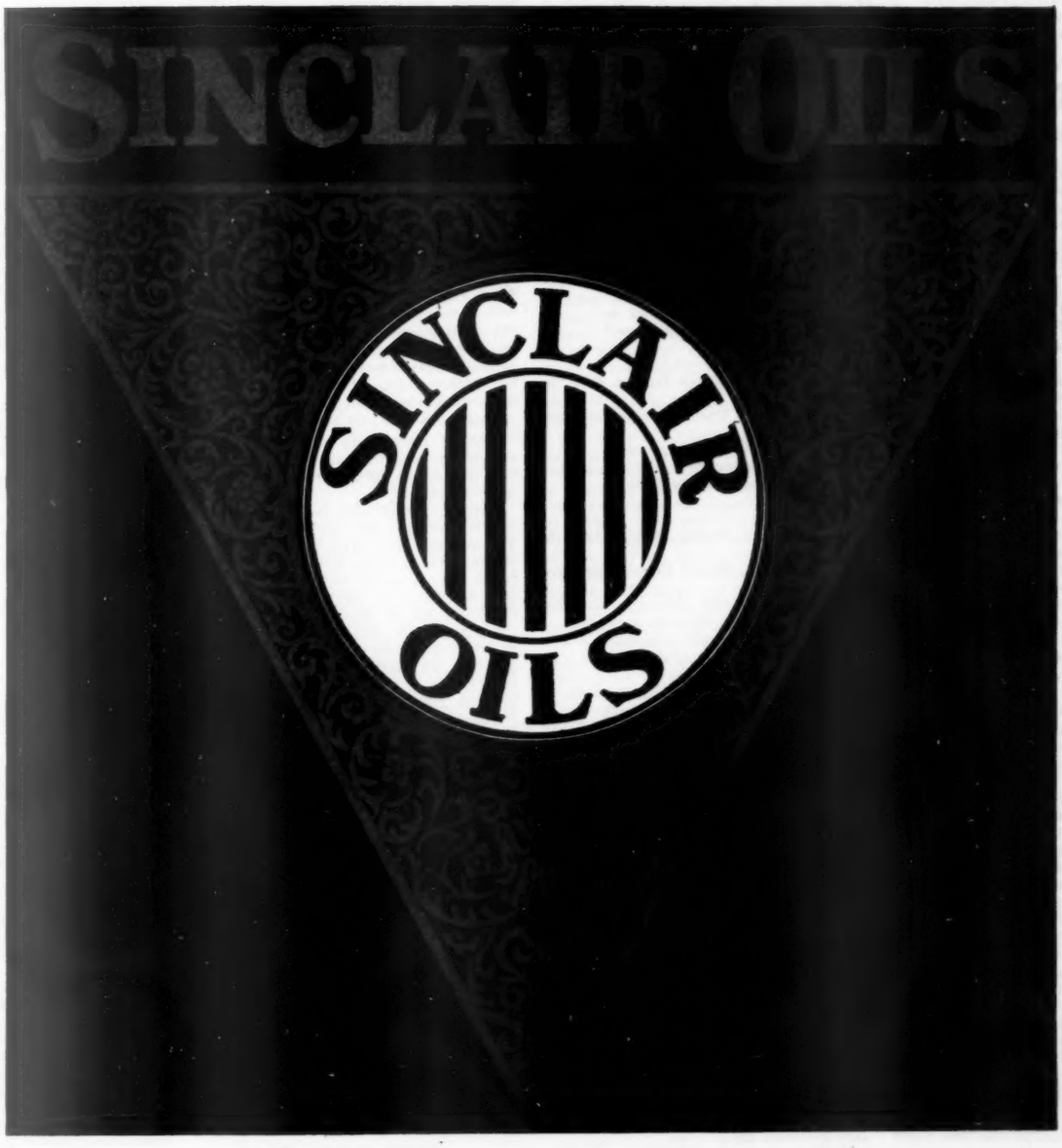
LOS ANGELES, Cal., March 28.—All is peace and quiet again in the marketing situation on the Pacific Coast. The only marketer of gasoline who did not join in the price cut of 1 cent per gallon was the Standard. The Standard's base price at Los Angeles was held firm at 18½ cents, tax included. Within two or three days after the Shell, Union, General Petroleum and other companies cut prices, they again posted the 18½-cent price. At the same time the indiscriminate discounting of scrip books and commercial accounts was also stopped and now, four days after the excitement, the retail gasoline market along the entire Pacific Coast appears surprisingly firm.

This stiffening in gasoline has also served to infuse strength into the price structure of other refined products. Absorption natural gasoline is not as strong as it was a month or so ago but is still making a differential of 3 cents to 3½ cents below retail gasoline.

There is no particular activity in the lubricating oil market and the new scale of prices appears to be generally expected. The fuel oil and distillate market is steady. Fuel oil still maintains its remarkable appearance of strength but there is beginning to be some wonder as to whether it can maintain this strength indefinitely with the continual mounting of stocks of the commodity in California.

### NEW COMPOUNDING FIRM

CHICAGO, March 30.—Paul T. Bruyers, formerly with the Swan & Finch Co., and D. L. Baldwin, formerly of the Cataract Refining & Manufacturing Co., have organized the Metal Lubricants Co., at Chicago, and will compound oils and greases for industrial uses.




WHEN you see tne Sinclair trade-mark, you are reminded of the Sinclair guarantee. A guarantee that Sinclair Oils are all you demand them to be. A guarantee that Sinclair Service is as good as your customers expect of you.

SINCLAIR REFINING COMPANY
New York: Sinclair Oil Bldg., 45 Nassau St. Chicago: 111 West Washington St.
*Cable Address: "Lucent"*

# Late Fields

(Continued from Page 30)

edge of Corcovado) looks like a dry hole as it is around 2,400 feet. Offsetting the Corona No. 3 in a block of acreage to the east, Mexican Sinclair Petroleum Corp.'s No. 1 Garruche-Corcovado is showing nicely for a well, its depth being 1,740 feet, and it is flowing say 600 bbls. by heads.

North by east of this little group in its long narrow east-west Lot G, Cosmos Oil Co.'s No. 9, known locally as the "Henry Test" has had considerable gas showing, and at 1,890 feet, in what was reported in brown limestone, with some oil shows. Unfortunately it is now fishing. If this test should develop into a well a lot of contractors scattered in Lot G will be much heartened.

Cia. Mexicana-Holandesa la Corona, S. A. (Royal Dutch-Shell), has scored two more pay completions in the southwest part of the Corcovado sector of the northern fields. No. 7, Lot 6, Corcovado, just a little northeast of its original real well in Sector (No. 3, Lot 11), is rated 3,000 bbls. at 2,057 feet; and No. 2, Lot 11, a close offset to the south of No. 3 is good for 2,000 bbls. at 2,400 feet. The depth of the latter indicates a sudden plunge of the structure, as No. 3 was completed at 2,140 feet. The latest report in Mexican Sinclair Petroleum Corp.'s No. 2 Garruche-Corcovado, shows it to be flowing 1,000 bbls. steady at 1,800 feet. The drill will hardly be sent much deeper. This test offsets the Leonard well. The entire group of these pay wells is in the extreme southwest part of the Corcovado sector. The other extensive drilling operations away from there show thus far nothing but failures.

### LOUISIANA-ARKANSAS

SHREVEPORT, La., March 31.—There are 23 producing wells in the deep Smackover sand with a present daily production of 28,000 bbls. The salt water intrusion is not considered a menace by operators who are more inclined to fear overproduction. The Natural Gas & Petroleum Co. completed No. 6 Murphy yesterday, Section, Section 8-16-15, flowing 4,000 bbls. clean pipe line oil at 2,476 feet, while the Pure Oil Co.'s No. 1 Bilyew on same section completed the same day, flowed 8,000 bbls. of fluid, 95 per cent salt water at 2,370 feet. The opinion here is that they go too deep when they get salt water. The Humble Co. completed No. 5 Pate yesterday, flowing 1,800 bbls. of clean oil at 2,385 feet in Section 10-16-15.

The gasoline content of deep Smackover oil is 4 per cent. An analysis of Smackover deep oil showed as follows: 8 per cent naphtha; 47 gravity; 190 initial, 440 end point; 15 per cent gas oil; 75 per cent 16 gravity road oil containing 1⅓ per cent sulphur with 2 per cent refining loss.

Immediately following the discovery of the Urania Field in La Salle Parish, comes news of another new field in Sabine Parish and scouts and operators are being kept busy watching the final outcome of the two promising tests now in evidence.

The Sabine well was drilled by L. M. Emlet on the Bowman-Hicks Lumber Co. lease in the northeast quarter of the southeast quarter of Section 9-7-12, near Loring, a small station on the Kansas City Southern Railroad, 3 miles south of Zwolle. The drill topped the sand at 2,503 feet, drilled 13 feet into the sand and after standing a few hours, bailed several barrels of exceptionally high grade oil. After bailing nearly to the bottom, it was found the liner was stuck in about 14 feet of shale that had heaved in and it will be necessary to wash out the shale and rebail before a conclusive test of the well can be made.

This is the first development of importance in two deep tests being made by Emlet, backed by R. L. Gay, of the Bank of Zwolle, the second test now drilling at 1,500 feet in Section 8-17-12. Previous to this, they had drilled several shallow tests following a surface showing of oil in an old well long standing idle, but when these tests failed to develop oil in commercial quantities, it was decided to go to the deep sand. Mr. Emlet was in the East on a business trip when the well came in but has been called back and immediately upon his return, operations will be resumed on the well and another test made. In the meantime, storage is being provided and the well cleaned out and there is every reason to expect the development of a new oil field here, in the immediate future.

## CONVENTION SIDELIGHTS

(Continued from Page 107)

Had to work and dance a jig
But you put it over big
How do you do.

How do you do, Fritz Aurin, how do you do,
How do you do, Fritz Aurin, how are you?
All the oil that's left below
You have figured so and so
How the devil do you know?
How do you do.

How do you do, Frank Greene, how do you do,
How do you do, Frank Greene, how are you?
In The Journal every week
Are your structures drawn so neat
Advertising can't be beat.
How do you do.

How do you do Sidney Powers, how do you do,
How do you do, Sidney Powers, how are you?
Every time that there's a scramble
You shine out just like a candle
There's no job that you can't handle
How do you do.

How do you do, David White, how do you do,
How do you do, David White, how are you?
Fire your furnace up and see
What the source rock is to be
While we wait impatiently,
How do you do.

The next number on the program, ladies and gentlemen, is a modern problem play conceived and interpreted by the Houston Amateur Drama Leaguers. Scene: The office of Colonel Humphreys. Decorations on the wall, a structure map of Bazette. The Colonel and Julius Fohs then sing to the tune of "Why Did I Kiss That Girl," a mournful melody entitled, "Why Did I Drill That Well, Why, Oh Why, Oh Why."

"Filming in Folleywood" enjoyed the distinction of being the only act staged after midnight. It was an expose in one reel under the person direction of Glen M. Ruby. The cast follows:

| | |
|---|---|
| The Steam Roller | Himself or Itself |
| Ned Neveryet de Jollier | E. Beck |
| Wallows Spratt | Nels Beck |
| Alec Dozen | Cliff Mohr |
| Bill Rawther | C. M. Roth |
| Jelmer Tomiss | E. Russell Lloyd |
| Ramon Seemore | H. L. Baldwin |
| C. E. Dicker | Junius Henderson |
| Gentleman Jim Carter | H. A. Stewart |
| Max Bowl | A. E. Brainerd |
| Gaseous A. Fisher | E. A. Hall |
| Carol Wiggleman | P. H. Oles |
| A Director | D. E. Lounsberry |
| A Cameran Man | Floyd Miller |
| Several Stage Hands | Rocky Mountain Goats |

The noise in the banquet hall Friday night brought back memories of the good old college days. In fact, until the arrival of food kept everybody busy, the orchestra had a hard time getting in a few tunes between college yells. Missouri, Chicago, Wisconsin, Kansas and Oklahoma seemed to have managed to get together better than other schools, but a lot of others made themselves heard. R. B. Whitehead was broad-minded and led his Chicago and Missouri cohorts in a rousing cheer for I. C. S.

## Pure Oil Co. Buys Humphreys Producing Properties in Texas

MEXIA, Tex., March 28. — The Pure Oil Co. bought the entire Humphreys holdings in Limestone, Navarro and Freestone Counties this week for $7,000,000 only a few days after Colonel Humphreys gave it out that there was nothing to the report that the property was to be sold for any sum. The purchase by the Pure Oil Co. includes 64 producing wells and 10 drilling wells and the tank farm and its contents on the Carter farm in Limestone County. The production of the producing properties is around 16,000 bbls. The Humphreys Boyd Oil Co. had already taken about 1,250,000 bbls. of oil from the properties which oil was sold to the Prairie Oil & Gas Co. and the Sinclair Crude Oil Purchasing Co. at a contract price. The Pure Oil Co. will assume the contract which calls for 3,000,000 bbls. of oil to the Prairie and 1,000,000 bbls. to the Sinclair company. The purchase price of $7,000,000 is payable by the exchange of 180,000 shares of Pure Oil Co. common stock, share for share, for Humphreys Boyd stock, and $2,500,000 in cash.

Colonel Humphreys and his organization retain their wildcat acreage in Texas and will devote future efforts to opening more pools.

Recent completions in the Wortham Field include the following wells: Humphreys Boyd Oil Co.'s No. 15-B Smith, 10 bbls. a day from sand at 2,996-3,015 feet; same company's No. 7-A Wilson, 150 bbls. at 3,007-26 feet; Godley Oil Co.'s No. 3 Manning, 150 bbls. at 2,980 3,000 feet; Rio Bravo Oil Co.'s No. 9 Southern Pacific Railroad right-of-way, 110 bbls., at 3,002 to 3,009 feet; Humphreys Boyd Oil Co.'s No. 17-B Smith, 200 bbls. at 2,998-3,017 feet.

Recent completions in Powell were as follows: Gulf Production Co.'s No. 6 Bush, 75 bbls. from sand topped at 1,160 feet, total depth 1,300 feet. Tidal Oil Co.'s No. 4 J. B. Bush, 8 bbls. at 1,126 feet, total depth 1,600 feet; Andrews Petroleum Corp.'s No. 3 Williamson, dry and abandoned at 1,600 feet.

## COASTAL LUBRICANT PRICES MAY BE SHADED

HOUSTON, Tex., March 30. — Although no changes have been made in quotations in lub stocks from Gulf Coast crude, refiners in this district are apprehensive and are inclined to shade prices some in anticipation of a reduction in crude prices.

The rapidly increasing gross production in this area is considered a menace to crude prices. Some of the major companies are advocating a reduction of drilling operations to stabilize conditions.

## INDUSTRY VINDICATED BY GEORGIA COURTS

ATLANTA, Ga., March 28.—The oil industry scored a strong point in Superior Court when Judge George L. Bell denied a petition of State offcials and the city of Atlanta for an injunction prohibiting oil and gas companies in the State "from combining to increase prices," as the plaintiffs charged was done. Judge Bell's action dissolved the temporary injunction against increase in gasoline price previously granted by Judge E. D. Thomas.

Judge Bell declared the Superior Court had no authority to fix prices and held that the accusation of a price fixing conspiracy among the companies has been "overwhelmingly disproved."

### BOUGHT BY PEERLESS CO.

CHICAGO, March 30.—The C. A. Gustafson Co., Chicago, announces the sale of its Kansas City office with all business to the Peerless Oil & Refining Co., of Chanute, Kan. The new management will retain the entire staff of the office.

## REFINERS MORE HOPEFUL IN OIL CITY REPORT

OIL CITY, Pa., March 28.—Although the market is still weak and a soft condition is apparent in all refined products the refiners of this district have assumed a more optimistic view of things as a result of the weather, which they hope and expect will be a big factor in checking the decline in some of the prices.

This is especially noticeable in the viewpoint of some of the refiners in regard to the gasoline business. The weather has been good during the past week and the dirt roads in the country districts are drying up fast. If this good weather continues for a week the farm trade will then be actively in the market for gasoline and the city drivers will have their cars on duty for longer periods of time. This, the refiners believe, will at least check the decline in the tank car prices which has been quite pronounced during the past few weeks and which continued during the present week. The market for gasoline continues to be soft.

The kerosene market is dull and the downward tendency of prices continues. However, the inquiries seem to be picking up and one of the leading refineries in this section reports the receiving of more orders during the past three days than in the preceding 10 days. However, some of the refiners believe the outlook is good as the tractors will soon be in use on spring plowing and will be burning up considerable quantities of kerosene.

Stocks continue to be soft and neutrals are not strong. Wax is extremely soft. Fuel oil is very weak. The cracking plants are not using much fuel oil and the furnace demand is down considerably as the result of the arrival of warmer weather.

## NORTH TEXAS INACTIVE WAITING DEVELOPMENTS

FORT WORTH, Tex., March 30.—The refined oil markets in the North Texas territory at present is very sensitive. It is ready to decline on the slightest provocation while also ready to advance at the slightest indication of better prospects. As it stands it is inactive. There is a very limited demand for refined oils and practically none moving.

Stocks of gasoline and other products do not appear to be heavy. Both refiners and marketers regard the situation as strictly a spot market and are carefully avoiding future contracts. A slight reduction in crude prices would be disastrous to the refined market, while a few good purchases would tend to sustain prices and very likely bring about advances. There appears to be very little distress stuff in North Texas territory, but the belief prevails that unless there is some fairly good buying soon, there will be a reduction in crude, which will mean lower prices on gasoline. Refiners contend at the present price of gasoline they cannot continue paying present prices for crude.

Considered as a whole, the trade is hopeful, looking forward to the next 30 days when spring weather will be in full swing and the demand for gasoline will result in higher prices.

The drought in western Texas is making itself felt in the market. Under ordinarily good farming conditions this great farming section is a large consumer of distillates and gasoline. Ordinarily at this season there would be thousands of tractors working on the large farms of western Texas but under the present drought out there, a great many are idle.

Gasoline prices are reported firm. United States Motor Oil is quoted at 10¼ to 10½ cents, 64-66, 375 is quoted at 12¾ to 13 cents, 60-62, 400 is going at 11¾ to 12 cents and 56-58, 450 is quoted at 10 cents with probably a little having moved during the week at 9¾ cents. The market on kerosene is practically unchanged, 41-43 water white kerosene being priced at 4½ to 4⅝ cents.

Fuel oil has finally yielded to pressure and is now being quoted at $1.20 to $1.25 a barrel, while 32-36 gas oil is quoted at 3¼ cents per gallon.

# Fuel Oil Widely Used In Industries

## Railroads, Steel, Glass and Sugar Industries Large Users. Advantages Over Other Fuels Explained

By R. L. Walde

There were produced in the world about 500,000,000 bbls. of fuel oil during the year 1924. Needless to say, the fuel oil industry covers a wide and diversified field. Especially in the last few years has this field been widened so that at the present time many industries which a few years ago were using coal or some other fuel are today using fuel oil entirely.

### Changing Fuels

The changing over from coal or some other fuel to fuel oil in many of the larger industries has been a slow process on account of the comparatively large original expense entailed in installing storage tanks, pumping systems and burners. However, after the first cost, the advantages are usually enough to offset this after a short period of time.

Space does not permit to give the details for installing a fuel oil system. However, before making such, certain rules and regulations should be studied. If the installation is in the fire limits of a city, the fire department should be consulted. The matter of influencing fire insurance rates should be gone into. With the proper adhering to rules and regulations a fuel oil system can be installed without conflicting with fire department ordinances or increasing fire insurance rates.

We will now take up some of the various industrial uses of fuel oil and its many advantages in such industries.

### Oil Industry

Little should be said here with reference to the use of fuel oil in the oil industry, since fuel oil is one of its own products. It is only natural that this industry can best use one of its own products for fuel. Only in rare cases is fuel other than fuel oil used in the oil industry. Occasionally natural gas is present in large quantities nearby and the gas can be purchased at an exceptionally low price so that gas can be used cheaper than fuel oil and then only during several months out of the year when the price of fuel oil is exceptionally high.

### Locomotives

Several decades ago, Mr. James Holden, the late locomotive superintendent of the Great Eastern Railway, developed an oil-burning system for fuel oil which marked the beginning of fuel burning in locomotives. With later improved methods of combustion and handling this branch of the fuel-burning industry has grown to be one of the largest, if not the largest. Slowly but surely railroad engineers have convinced the railroad owners that the use of fuel oil is most advantageous for their locomotives. Today there is scarcely a major railroad that does not have oil-burning engines. Fuel oil is shipped half way across our continent to be used in locomotives. Other countries are also using fuel oil for locomotives, such as India, Egypt, Japan and all the European countries.

The principal advantages of oil burning locomotives are as follows: Less space needed for storage, less cost in handling and transporting, an evener and more efficient fire for the engine, greater distance covered without refueling, and in most cases cheaper per amount of heat developed.

### Steel and Iron Industry

All ores of iron are principally ferous oxides—chemical combinations of iron (Fe) and oxygen (O). In the smelting process these oxides are reduced, in other words, the oxygen is removed from the chemical combination, leaving the pure iron. Enormous quantities of heat are required to bring about this reduction and the smelting of the raw iron.

With fuel oil a more even temperature may be maintained because the heat of the furnace is easily regulated. When fuel oil is used a somewhat different chemical reaction takes places in the furnace and a superior quality of steel is produced. For this reason, many large steel plants are now using fuel oil entirely for their smelting and purifying processes.

The cost of installing a system for burning fuel oil in this industry is comparatively low.

### Steam Navigation

We have heard much in the past year about "Oil for the Navy." This was in part due to the fact that the requirements of the American Navy and the Merchant Marine present a great, if not a priority demand on fuel oil. The oil-burning vessels at the present time represent millions of horse power. In the year 1920 the Navy alone required 8,000,000 bbls. of fuel oil. This was only a small part of the fuel needed for all vessels. With the growing demands and the trend towards fuel oil burning, is it any wonder that we have heard so much about the Naval Oil reserves?

All of the advantages of oil burning on land are applicable to its use in steam navigation. In addition, there is the advantage of increasing the ship's radius of action. Fuel oil has a higher calorific value than coal. A ton of coal takes up 43 cubic feet of space, while a ton of fuel oil takes up only 36 cubic feet. With equal bunker space the ship's radius of action is increased approximately 80 per cent by the use of fuel oil. In other words, cargo can be carried in the space where coal formerly was stored. It takes less men to fire the boilers, which again means more cargo. Time is saved in refueling the ship, no ashes to be handled and no stoking, all of which means a reduction in the labor cost.

### Glass Industry

Silica is the main constituent in the manufacture of glass. Some alkalies and lead compounds are also used. In the commercial world glass is known by various names but it always consists of some form of silicate—a chemical combination of some metallic element plus silicon (Si) and oxygen (O). In general, the chemical process is as follows: Sodium carbonate ($Na_2CO_3$) plus calcium carbonate ($CaCO_3$), which is lime, are mixed with pure sand ($SiO_2$) and the whole mass melted, forming → ($Na_2O$, $CaO$, 6 $SiO_2$), is glass, plus (2 $CO_2$), which is carbon dioxide and passes off as a gas.

The melting of this mixture requires large quantities of fuel. This fuel, in order to make a high grade glass, should be free from smoke or soot. Delicate heat control is also very important. Since fuel oil burners have been perfected to burn the oil without smoking and so constructed that they are easily controlled, oil has come to be quite generally used in glass making. The flame can be applied directly to the glass discoloring it, which very materially increases the heat efficiency. The temperature control is so accurate that many articles can now be made which were formerly ruined on account of the heat fluctuations.

### Brick and Pottery Kilns

Here we have in the main a process of drying and baking. The water and carbon dioxide are first driven off from the soft muddy forms and then the temperature is raised at a definite rate at which time the baking, so to speak, is effected.

This requires a fine adjustment and control of heat in order to eliminate cracking of material and making a high grade product. In the case of the finer potteries, such as porcelain ware, the matter of discoloration comes in the same as in glass-making. It is selfevident that fuel oil makes an ideal fuel for this sort of work.

### Shop Furnaces

The conditions in shop work, such as forging and welding, require a rather intense heat at a given point. This heat must, however, not be such that the metal to be forged or welded is burned in places before it is heated enough to do the work. The heat from acetylene is intense but the dangers of burning the iron are ever-present for this kind of work. Other fuels may do the work satisfactorily but may be too expensive or have other objections. For an all-around cheap fuel for shop work, fuel oil proves to be very efficient.

### Sugar Refining

Ripe sugar cane is composed of about 40 per cent sugar, 74 per cent of water and 12 per cent of fibre. The heat required here is represented by the power used in pressing the sugar and water out of the fibre, the evaporation of the water from the sugar and the processes involved in the purification. Sugar plants from the beginning have grappled with the problem of using this fibre of the cane for fuel. This has in general been unsatisfactory, especially where no special installations have been made for burning this fibre. This special installation is a rather expensive proposition. Fuel oil, owing to its low cost, has been most welcome to the sugar industry.

### Producing Electricity

In electrical plants the advantages of fuel oil are the same as those that apply to any plant where steam power is used. These advantages have been mentioned throughout this discussion. However, the outstanding problem here is that of handling the fuel. In some cases as high as 5,000 bbls. of fuel oil are used daily in one plant, which in the terms of coal means about 5,000 tons—about four to five trainloads. The travel of this amount of coal from freight car to the ash heap represents money in terms of labor and upkeep of equipment. This is true even with the most modern means of machinery for unloading, automatic stokers and ash-removing equipment. Needless to say the difference in cost between handling 5,000 bbls. of fuel oil is an enormous item in favor of fuel oil burning.

### Domestic Uses

There has been a steady trend towards the use of fuel oil for heating purposes in hotels, apartment houses, public buildings and even private residences. In addition to this there are the other advantages of fuel oil applicable to power plants.

### Additional Uses of Fuel Oil

Rubber industry, asbestos and gypsum manufacturing, cement and lime plants, boiler making, wire annealing, candy factories, water heaters, breweries (near), canneries, tractors, tempering shops, cruicible furnaces, copper making, drop forging, tin plate making, gold cyanide smelting, heating rivets, rivet making, Japanning, foundries, galvanizing, sand drying, lead industries, pipe bending, shovel making, enameling, fire engines, steam shovels, silver refining, ship building.

### Summary of the Advantages of Fuel Oil

Low cost, economic combustion, small storage space, clean fire, even fire, easily regulated fire, low unloading cost, small transportation cost, minimum number of engineers and firemen, no smoke or soot.

## GEOLOGICAL SURVEY REPORT FOR FEBRUARY, 1925

(Continued from Page 23)

| | | | | |
|---|---|---|---|---|
| Foreign crude oil | | 4,186,000 | | 4,305,000 |
| Total crude oil at refineries | | 43,290,000 | c/ | 37,174,000 |
| Total pipe line, tank farm and refinery stocks of crude petroleum | | 391,223,000 | | 368,901,000 |

a/ Revised. b/ Stocks of topped oil topped in Mexico not included. c/ Not yet available.

**IMPORTS AND EXPORTS OF CRUDE PETROLEUM (Barrels)**

| | January, 1925 | | February, 1925 | | | |
|---|---|---|---|---|---|---|
| | Total | Daily Average | Total | Daily Average | Jan.-Feb. 1925 | Jan.-Feb. 1924 |
| Imports: | | | | | | |
| From Mexico | 6,462,000 | 208,452 | 4,951,000 | 176,821 | 11,413,000 | 12,759,000 |
| From other countries | 563,000 | 18,161 | 629,000 | 22,464 | 1,192,000 | 55,000 |
| Total | 7,025,000 | 226,613 | 5,580,000 | 199,285 | 12,605,000 | 12,814,000 |
| Exports: | | | | | | |
| Domestic crude oil: | | | | | | |
| To Canada | 654,000 | 21,097 | 546,000 | 19,500 | 1,200,000 | 1,595,000 |
| To other countries | 480,000 | 15,484 | 566,000 | 20,214 | 1,046,000 | 1,536,000 |
| Foreign crude oil | 15,000 | 484 | 10,000 | 357 | 25,000 | 77,000 |
| Total | 1,149,000 | 37,065 | 1,122,000 | 40,071 | 2,271,000 | 3,208,000 |

**INDICATED DELIVERIES OF CRUDE PETROLEUM TO DOMESTIC CONSUMERS (Barrels)**

(Production plus imports minus exports plus stocks, exclusive of consumer's stocks, at beginning of month minus stocks at end of month)

| | January, 1925 | | February, 1925 | | | |
|---|---|---|---|---|---|---|
| | Total | Daily Average | Total | Daily Average | Jan.-Feb. 1925 | Jan.-Feb. 1924 |
| Domestic Petroleum by fields of origin: | | | | | | |
| Appalachian | 2,140,000 | 69,032 | 1,985,000 | 70,893 | 4,125,000 | 4,291,000 |
| Lima-Indiana | 204,000 | 6,581 | 158,000 | 5,643 | 362,000 | 361,000 |
| Ill. & S. W. Ind. | 743,000 | 23,968 | 688,000 | 24,571 | 1,421,000 | 1,479,000 |
| Mid-Continent | 34,504,000 | 1,113,032 | 31,026,000 | 1,108,071 | 65,530,000 | 55,962,000 |
| Gulf Coast | 3,010,000 | 97,097 | 2,156,000 | 77,000 | 5,166,000 | 4,989,000 |
| Rocky Mountain | 2,519,000 | 81,258 | 2,342,000 | 83,643 | 4,861,000 | 5,131,000 |
| California | 17,500,000 | 564,516 | 15,137,000 | 540,607 | 32,637,000 | 39,265,000 |
| Deliveries and Exports | 60,620,000 | 1,955,484 | 53,492,000 | 1,910,428 | 114,112,000 | 111,478,000 |
| Deliveries | 59,486,000 | 1,918,903 | 52,380,000 | 1,870,714 | 111,866,000 | 108,347,000 |
| Foreign petroleum | 7,128,000 | 229,935 | 5,639,000 | 201,393 | 12,767,000 | 12,844,000 |
| Deliveries of domestic and foreign petroleum | 66,614,000 | 2,148,838 | 58,019,000 | 2,072,107 | 124,633,000 | 121,191,000 |

**INDICATED DOMESTIC CONSUMPTION OF CRUDE PETROLEUM (Barrels)**

(Production plus imports minus exports plus stocks, including refinery stocks, at beginning of month minus stocks end of month)

| | December, 1924 | | January, 1925 | | January, 1924 | |
|---|---|---|---|---|---|---|
| | Total | Daily Average | Total | Daily Average | Total | Daily Average |
| Crude oil run to refinery stills a/ | 57,880,000 | 1,867,097 | 57,333,000 | 1,849,452 | 51,013,000 | 1,645,581 |
| Indicated other consumption of crude oil including losses | 9,893,000 | 319,129 | 6,986,000 | 225,354 | 9,925,000 | 320,161 |
| Total | 67,773,000 | 2,186,226 | 64,319,000 | 2,074,806 | 60,938,000 | 1,965,742 |

a/Bureau of Mines.

# Gulf Coast Area Holds Up Production

## Initial Output of Completions During March Would Have Shown Decline but for Activity in that Territory

### SUMMARY OF ALL FIELDS

| Field— | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Eastern | 275 | 1,059 | 35 | 71 |
| Lima | 37 | 395 | 8 | 2 |
| Central Ohio | 27 | 115 | 7 | 15 |
| Indiana | 6 | 125 | 2 | 1 |
| Kentucky | 94 | 667 | 27 | 7 |
| Mississippi | 1 | 0 | 1 | 0 |
| Illinois | 16 | 572 | 4 | 5 |
| Kansas | 107 | 11,094 | 39 | 3 |
| Oklahoma | 423 | 73,587 | 131 | 50 |
| N. Central Texas | 291 | 22,229 | 114 | 8 |
| E. Central Texas | 104 | 17,309 | 26 | 2 |
| Gulf Coast | 120 | 67,503 | 30 | 0 |
| Southwest Texas | 29 | 4,590 | 2 | 4 |
| Louisiana-Arkansas | 117 | 13,071 | 26 | 16 |
| Wyoming | 21 | 2,651 | 3 | 5 |
| Montana | 11 | 160 | 8 | 0 |
| Colorado | 3 | 1,000 | 1 | 1 |
| New Mexico | 6 | 1,085 | 1 | 0 |
| Total March | 1,688 | 217,212 | 465 | 190 |
| Total Feb. | 1,503 | 211,863 | 405 | 173 |
| Difference | 185 | 5,349 | 60 | 17 |

**Rigs and Wells Drilling**

| Field— | Rigs | Drg. | Ttl. |
|---|---|---|---|
| Eastern | 154 | 415 | 569 |
| Lima | 9 | 55 | 64 |
| Central Ohio | 30 | 47 | 77 |
| Indiana | 1 | 14 | 15 |
| Kentucky | 15 | 239 | 254 |
| Tennessee | 5 | 12 | 17 |
| Mississippi | 7 | 22 | 29 |
| Alabama | 1 | 9 | 10 |
| Georgia | 1 | 4 | 5 |
| Illinois | 5 | 30 | 35 |
| Kansas | 116 | 437 | 553 |
| Oklahoma | 258 | 1,151 | 1,409 |
| N. Central Texas | 75 | 328 | 403 |
| E. Central Texas | 18 | 76 | 94 |
| Gulf Coast | 58 | 157 | 215 |
| Southwest Texas | 25 | 75 | 100 |
| Louisiana-Arkansas | 106 | 386 | 492 |
| Wyoming | 74 | 269 | 343 |
| Montana | 17 | 114 | 131 |
| Colorado | 11 | 73 | 84 |
| New Mexico | 3 | 46 | 49 |
| Total March | 989 | 3,959 | 4,948 |
| Total Feb. | 1,036 | 3,493 | 4,529 |
| Difference | 47 | 466 | 419 |

The initial production of wells completed during March in all fields east of California recorded a gain of only 5,349 bbls. over the flush output for February although there were 185 more wells completed in March. A substantial reduction in the initial production would have been shown in March had it not been for the activity in the Gulf Coast area where new production totaled 67,503 bbls., the highest since the palmy days of West Columbia. The South Liberty and Hull Pools in Liberty County were mainly responsible for the record, South Liberty having 20 completions in March with a first day's output of 33,290 bbls. and Hull having 21 new wells with an initial production of 23,885 bbls. While there were 100 more wells completed in Oklahoma in March than during February, the flush production showed a decline of 6,954 bbls. In East Central Texas, the big event of the month was the bursting of the Bazette bubble when the Humphreys Boyd Oil Co. and Penn and others drilled two dry holes on locations supposed to be ideal. Activity in Arkansas and the North Central Texas area was reflected in increased output of these sections.

### OKLAHOMA FIELDS

**Summary of Wells Completed**

| County— | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Osage County | 57 | 10,613 | 12 | 6 |
| Tulsa | 25 | 755 | 12 | 1 |
| Okmulgee | 44 | 2,091 | 15 | 8 |
| Seminole | 42 | 19,328 | 8 | 1 |
| Okfuskee | 32 | 14,458 | 8 | 3 |
| Hughes and McIntosh | 32 | 11,925 | 2 | 2 |
| Muskogee and Wagoner | 23 | 190 | 12 | 3 |
| Creek | 43 | 3,878 | 13 | 6 |
| Pawnee | 12 | 770 | 4 | 0 |
| Payne and Lincoln | 14 | 1,742 | 2 | 5 |
| Kay | 12 | 3,799 | 4 | 2 |
| Garfield and Noble | 11 | 2,824 | 4 | 0 |
| Carter | 20 | 834 | 3 | 2 |
| Stephens and Cotton | 24 | 155 | 11 | 7 |
| Miscellaneous | 32 | 225 | 21 | 4 |
| Total March | 423 | 73,587 | 131 | 50 |
| Total February | 323 | 80,541 | 108 | 39 |
| Difference | 100 | 6,954 | 23 | 11 |

**Summary of Rigs and Wells Drilling**

| County— | Rigs | Drg. | Ttl. |
|---|---|---|---|
| Osage | 26 | 117 | 143 |
| Tulsa | 8 | 32 | 40 |
| Okmulgee | 30 | 62 | 92 |
| Seminole | 17 | 131 | 148 |
| Okfuskee | 19 | 80 | 99 |
| Hughes and McIntosh | 15 | 86 | 101 |
| Muskogee and Wagoner | 7 | 29 | 36 |
| Creek | 47 | 115 | 162 |
| Pawnee | 10 | 82 | 92 |
| Kay | 16 | 87 | 103 |
| Payne and Lincoln | 19 | 53 | 72 |
| Garfield and Noble | 8 | 59 | 67 |
| Stephens and Cotton | 9 | 37 | 46 |
| Pontotoc | 1 | 19 | 20 |
| Carter | 13 | 57 | 70 |
| Miscellaneous | 13 | 105 | 118 |
| Total March | 258 | 1,151 | 1,409 |
| Total February | 284 | 1,006 | 1,290 |
| Difference | 26 | 145 | 119 |

### KANSAS FIELDS

**Summary of Wells Completed**

| County— | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Butler | 11 | 400 | 7 | 0 |
| Cowley | 18 | 6,598 | 3 | 0 |
| Elk and Chautauqua | 7 | 407 | 1 | 1 |
| Greenwood | 39 | 3,369 | 8 | 0 |
| Montgomery | 3 | 0 | 3 | 0 |
| Miscellaneous | 29 | 320 | 17 | 2 |
| Total March | 107 | 11,094 | 39 | 3 |
| Total February | 96 | 10,402 | 25 | 8 |
| Difference | 11 | 692 | 14 | 5 |

**Summary of Rigs and Wells Drilling**

| County— | Rigs | Drg. | Ttl. |
|---|---|---|---|
| Butler | 7 | 28 | 35 |
| Chautauqua and Elk | 4 | 32 | 36 |
| Cowley | 25 | 105 | 130 |
| Greenwood | 47 | 99 | 146 |
| Montgomery | 0 | 30 | 30 |
| Russell | 5 | 15 | 20 |
| Sedgwick | 1 | 7 | 8 |
| Sumner | 2 | 19 | 21 |
| Wilson | 1 | 10 | 11 |
| Woodson | 4 | 7 | 11 |
| Miscellaneous | 20 | 85 | 105 |
| Total March | 116 | 437 | 553 |
| Total February | 97 | 352 | 449 |
| Difference | 19 | 85 | 104 |

### EAST CENTRAL TEXAS

**Summary of Field Operations**

| County— | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Limestone-Freestone | 73 | 16,904 | 10 | 1 | 7 | 26 | 33 |
| Navarro | 30 | 405 | 15 | 1 | 5 | 15 | 20 |
| Miscellaneous | 1 | 0 | 1 | 0 | 6 | 35 | 41 |
| Total Mar. | 104 | 17,309 | 26 | 2 | 18 | 76 | 94 |
| Total Feb. | 167 | 58,503 | 41 | 2 | 17 | 120 | 137 |
| Difference | 63 | 41,194 | 15 | 0 | 1 | 44 | 43 |

### NORTH CENTRAL TEXAS

**Summary of Wells Completed**

| District— | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Wichita County | 49 | 1,125 | 24 | 0 |
| Archer | 119 | 10,675 | 42 | 0 |
| Young | 38 | 4,382 | 15 | 0 |
| Stephens | 9 | 180 | 4 | 0 |
| Eastland | 14 | 165 | 5 | 3 |
| Wilbarger | 21 | 3,250 | 3 | 1 |
| Reagan | 7 | 175 | 5 | 1 |
| Brown | 6 | 255 | 1 | 0 |
| Wildcats | 28 | 2,022 | 15 | 3 |
| Total March | 291 | 22,229 | 114 | 8 |
| Total Feb. | 207 | 18,710 | 87 | 3 |
| Difference | 84 | 3,519 | 27 | 5 |

**Summary of Rigs and Wells Drilling**

| District— | Rigs | Drg. | Ttl. |
|---|---|---|---|
| Wichita County | 5 | 25 | 30 |
| Archer | 18 | 37 | 55 |
| Young | 6 | 34 | 40 |
| Stephens | 5 | 33 | 38 |
| Eastland | 4 | 21 | 25 |
| Wilbarger | 13 | 63 | 76 |
| Reagan | 3 | 22 | 25 |
| Brown | 2 | 5 | 7 |
| Wildcats | 19 | 88 | 107 |
| Total March | 75 | 328 | 403 |
| Total Feb. | 90 | 238 | 328 |
| Difference | 15 | 90 | 75 |

### GULF COAST

| District— | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Batson | 8 | 55 | 2 | 0 | 1 | 4 | 5 |
| Blue Ridge | 1 | 1,200 | 0 | 0 | 0 | 3 | 3 |
| Big Creek | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| Barber Hill | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Edgerly (La.) | 1 | 0 | 1 | 0 | 0 | 3 | 3 |
| Goose Creek | 16 | 1,340 | 5 | 0 | 4 | 12 | 16 |
| Humble | 2 | 0 | 2 | 0 | 1 | 4 | 5 |
| Hull | 21 | 23,885 | 2 | 0 | 11 | 22 | 33 |
| Jennings (La.) | 3 | 270 | 1 | 0 | 1 | 1 | 2 |
| Markham | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| Orange | 9 | 3,940 | 1 | 0 | 2 | 20 | 22 |
| Pierce Jct. | 1 | 250 | 0 | 0 | 1 | 1 | 2 |
| Spindletop | 8 | 583 | 0 | 0 | 1 | 2 | 3 |
| Saratoga | 6 | 763 | 1 | 0 | 4 | 1 | 5 |
| Sour Lake | 7 | 367 | 0 | 0 | 1 | 6 | 7 |
| South Liberty | 20 | 33,290 | 3 | 0 | 12 | 25 | 37 |
| Vinton (La.) | 6 | 1,500 | 3 | 0 | 1 | 9 | 10 |
| W. Columbia | 4 | 10 | 3 | 0 | 1 | 2 | 3 |
| Lockport (La.) | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Miscellaneous | 6 | 50 | 5 | 0 | 16 | 32 | 48 |
| Total Mar. | 120 | 67,503 | 30 | 0 | 58 | 157 | 215 |
| Total Feb. | 82 | 17,615 | 29 | 2 | 43 | 155 | 198 |
| Difference | 38 | 49,888 | 1 | 2 | 15 | 2 | 17 |

**Southwest Fields**

| Districts— | Comp. | Prod. | Dry | Gas | Rigs | Drg | Ttl. |
|---|---|---|---|---|---|---|---|
| Luling | 2 | 500 | 0 | 0 | 1 | 5 | 6 |
| Laredo | 4 | 150 | 1 | 1 | 2 | 6 | 8 |
| Somerset | 2 | 20 | 0 | 0 | 1 | 2 | 3 |
| Calliham | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Rockdale-Minerva | 1 | 20 | 0 | 0 | 1 | 3 | 4 |
| Jim Hogg County | 16 | 3,725 | 0 | 3 | 6 | 12 | 18 |
| Miscellaneous | 4 | *175 | 1 | 0 | 14 | 44 | 58 |
| Total Mar. | 29 | 4,590 | 2 | 4 | 25 | 75 | 100 |
| Total Feb. | 17 | 8,800 | 1 | 2 | 30 | 86 | 116 |
| Difference | 12 | 4,210 | 1 | 2 | 5 | 11 | 16 |
| Grand total March | 148 | 72,073 | 31 | 4 | 83 | 232 | 315 |
| Grand total Feb. | 79 | 26,415 | 30 | 4 | 73 | 241 | 314 |
| Difference | 69 | 45,658 | 1 | 0 | 10 | 9 | 1 |

*Southeast of Lockhart.

### NORTH LOUISIANA AND ARKANSAS

**Summary of Field Operations**

| Districts— | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Union Co. | 18 | 7,592 | 3 | 2 | 44 | 130 | 174 |
| Ouachita Co. | 46 | 2,957 | 5 | 0 | 27 | 110 | 137 |
| Nevada | 2 | 225 | 0 | 0 | 3 | 8 | 11 |
| Bellevue | 1 | 0 | 1 | 0 | 0 | 4 | 4 |
| Caddo | 2 | 15 | 1 | 0 | 4 | 28 | 32 |
| Cotton Valley | 22 | 2,270 | 3 | 2 | 13 | 34 | 47 |
| La. wildcats | 21 | 12 | 8 | 12 | 11 | 35 | 46 |
| Ark. wildcats | 5 | 0 | 5 | 0 | 4 | 37 | 41 |
| March | 117 | 13,071 | 26 | 16 | 106 | 386 | 492 |
| Feb. | 93 | 9,026 | 13 | 10 | 107 | 260 | 367 |
| Difference | 24 | 4,045 | 13 | 6 | 1 | 126 | 125 |

### ROCKY MOUNTAIN AREA

**Summary of Field Operations**

**WYOMING**

| Field— | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Big Muddy | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Salt Creek | 11 | 2,331 | 0 | 0 | 52 | 69 | 121 |
| Lance Creek | 1 | 20 | 0 | 0 | 0 | 3 | 3 |
| Big Horn Basin | 4 | 300 | 2 | 1 | 8 | 52 | 60 |
| Lost Soldier | 4 | 0 | 0 | 4 | 3 | 31 | 34 |
| Rock River | 0 | 0 | 0 | 0 | 0 | 19 | 19 |
| Fremont Co. | 1 | 0 | 1 | 0 | 0 | 26 | 26 |
| Osage | 0 | 0 | 0 | 0 | 7 | 10 | 17 |
| Natrona Co. | 0 | 0 | 0 | 0 | 0 | 15 | 15 |
| Lincoln and Uintah | 0 | 0 | 0 | 0 | 3 | 9 | 12 |
| Baxter Basin | 0 | 0 | 0 | 0 | 1 | 8 | 9 |
| Miscellaneous | 0 | 0 | 0 | 0 | 0 | 24 | 24 |
| Total Mar. | 21 | 2,651 | 3 | 5 | 74 | 269 | 343 |
| Total Feb. | 23 | 1,984 | 3 | 3 | 91 | 248 | 339 |
| Difference | 2 | 667 | 0 | 2 | 17 | 21 | 4 |

**MONTANA**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sunburst | 4 | 110 | 2 | 0 | 10 | 33 | 43 |
| Miscellaneous | 7 | 50 | 6 | 0 | 7 | 81 | 88 |
| Total Mar. | 11 | 160 | 8 | 0 | 17 | 114 | 131 |
| Total Feb. | 9 | 1,655 | 4 | 0 | 20 | 115 | 135 |
| Difference | 2 | 1,495 | 4 | 0 | 2 | 1 | 4 |

**COLORADO**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total March | 3 | 1,000 | 1 | 1 | 11 | 73 | 84 |
| Total Feb. | 2 | 200 | 1 | 0 | 11 | 81 | 92 |
| Difference | 1 | 800 | 0 | 1 | 0 | 8 | 8 |

**UTAH**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total March | 0 | 0 | 0 | 0 | 1 | 23 | 23 |

**NEW MEXICO**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total March | 6 | 1,085 | 1 | 0 | 3 | 46 | 49 |
| Total Feb. | 3 | 1,175 | 0 | 0 | 4 | 35 | 39 |
| Difference | 3 | 90 | 1 | 0 | 1 | 11 | 10 |

### CENTRAL OHIO

**Summary of Field Operations**

| | Comp. | Pro. | Dry | Gas | Rigs | Drig | Tl |
|---|---|---|---|---|---|---|---|
| Licking | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ashland | 1 | 0 | 0 | 1 | 4 | 4 | 8 |
| Medina | 0 | 0 | 0 | 0 | 2 | 8 | 10 |
| Lorain | 1 | 0 | 0 | 1 | 1 | 4 | 5 |
| Wayne | 9 | 25 | 3 | 4 | 2 | 6 | 8 |
| Richland | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Vinton | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Holmes | 11 | 80 | 1 | 8 | 10 | 15 | 25 |
| Jackson | 0 | 0 | 0 | 0 | 4 | 1 | 5 |
| Athens | 2 | 0 | 1 | 1 | 7 | 3 | 10 |
| Meigs | 1 | 10 | 0 | 0 | 0 | 1 | 1 |
| Summitt | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Cuyahoga | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Lawrence | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Huron | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Tl. Mar. | 27 | 27 | 115 | 7 | 15 | 30 | 47 |
| Tl. Feb. | 39 | 5 | 9 | 29 | 37 | 56 | 93 |
| Difference | 12 | 110 | 2 | 14 | 7 | 9 | 16 |

### LIMA FIELD

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Wood | 9 | 79 | 2 | 0 | 2 | 11 | 13 |
| Hancock | 3 | 75 | 1 | 0 | 2 | 3 | 5 |
| Allen | 4 | 38 | 0 | 0 | 0 | 3 | 3 |
| Auglaize | 2 | 20 | 1 | 0 | 0 | 8 | 8 |
| Sandusky | 2 | 25 | 1 | 0 | 0 | 3 | 3 |
| Mercer | 4 | 25 | 0 | 1 | 1 | 4 | 5 |
| Van Wert | 0 | 0 | 0 | 0 | 1 | 4 | 5 |
| Seneca | 1 | 4 | 0 | 0 | 0 | 1 | 1 |
| Lucas | 1 | 0 | 0 | 1 | 0 | 2 | 2 |
| Ottawa | 2 | 11 | 0 | 0 | 0 | 1 | 1 |
| Darke | 1 | 6 | 1 | 0 | 0 | 1 | 1 |
| Shelby | 5 | 36 | 1 | 0 | 0 | 5 | 5 |
| Hardin | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Paulding | 3 | 82 | 1 | 0 | 3 | 2 | 5 |
| Defiance | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Crawford | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Michigan | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Total Mar. | 37 | 395 | 8 | 2 | 9 | 55 | 64 |
| Total Feb. | 26 | 296 | 7 | 0 | 5 | 40 | 45 |
| Difference | 11 | 99 | 1 | 2 | 4 | 15 | 19 |

### ILLINOIS

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|
| Clark | 5 | 148 | 0 | 0 | 10 | 10 |
| Crawford | 2 | 4 | 0 | 0 | 3 | 3 |
| Lawrence | 1 | 25 | 0 | 0 | 2 | 2 |
| Marion | 1 | 0 | 1 | 0 | 0 | 0 |
| Wabash | 4 | 365 | 2 | 3 | 5 | 8 |
| Douglas | 0 | 0 | 0 | 0 | 1 | 1 |
| Union | 0 | 0 | 0 | 0 | 1 | 1 |
| Jasper | 0 | 0 | 0 | 0 | 1 | 1 |
| Coles | 1 | 0 | 1 | 0 | 1 | 1 |
| Edwards | 0 | 0 | 0 | 1 | 0 | 1 |
| McDonough | 0 | 0 | 0 | 0 | 1 | 1 |
| Fayette | 0 | 0 | 0 | 1 | 0 | 1 |
| Jackson | 2 | 30 | 0 | 0 | 5 | 5 |
| Total March | 16 | 572 | 4 | 5 | 30 | 35 |
| Total Feb. | 8 | 140 | 4 | 2 | 10 | 12 |
| Difference | 8 | 432 | 0 | 3 | 11 | 14 |

### INDIANA

**Summary of Field Developments**

| | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Jay | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Adams | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Delaware | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Randolph | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Gibson | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| Pike | 2 | 105 | 1 | 0 | 0 | 3 | 3 |
| Sullivan | 3 | 20 | 0 | 1 | 0 | 0 | 0 |
| Hendricks | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Jackson | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Shelby | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Knox | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Allen | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Spencer | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Total Mar. | 6 | 125 | 2 | 1 | 1 | 14 | 15 |
| Total Feb. | 7 | 70 | 3 | 0 | 1 | 11 | 12 |
| Difference | 1 | 55 | 1 | 1 | 0 | 3 | 3 |

### KENTUCKY-TENNESSEE

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Warren | 10 | 76 | 3 | 0 | 0 | 29 | 29 |
| Allen | 11 | 18 | 7 | 0 | 2 | 18 | 20 |
| Barren | 26 | 226 | 3 | 1 | 2 | 39 | 41 |
| Owensboro | 3 | 17 | 0 | 0 | 1 | 19 | 20 |
| Cumberland-Monroe | 3 | 12 | 2 | 0 | 0 | 13 | 13 |
| Russell | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Metcalf | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Logan | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Simpson | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Wayne | 2 | 0 | 2 | 0 | 0 | 21 | 21 |
| Estill | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Wolfe | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| Lee-Owsley | 11 | 44 | 3 | 1 | 1 | 16 | 17 |
| Lawrence-Johnson | 12 | 239 | 0 | 0 | 2 | 23 | 25 |
| Johnson-Magoffin | 5 | 15 | 2 | 0 | 0 | 14 | 14 |
| Floyd | 6 | 0 | 2 | 4 | 0 | 12 | 16 |
| Elliott | 2 | 20 | 1 | 0 | 0 | 1 | 1 |
| Jackson | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| Rowan | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Madison | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Fleming | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Greenup | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Martin | 1 | 0 | 0 | 1 | 0 | 2 | 2 |
| Knox | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Morgan | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Bell | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Boyd | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Laurel | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Harlan | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Kentucky | 94 | 667 | 27 | 7 | 15 | 229 | 254 |
| Tennessee | 0 | 0 | 0 | 0 | 5 | 13 | 17 |
| Mississippi | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Alabama | 0 | 0 | 0 | 0 | 1 | 9 | 10 |
| Georgia | 0 | 0 | 0 | 0 | 1 | 4 | 5 |
| Total March. | 95 | 667 | 28 | 7 | 22 | 286 | 315 |
| Total Feb. | 131 | 1,731 | 38 | 7 | 28 | 284 | 321 |
| Difference | 36 | 1,064 | 10 | 0 | 1 | 2 | 3 |

### EASTERN FIELDS

| Fields— | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Allegany | 13 | 23 | 1 | 0 |
| Bradford | 65 | 187 | 2 | 1 |
| Middle Field | 5 | 15 | 0 | 0 |
| Venango-Clarion | 28 | 31 | 3 | 0 |
| Butler-Armstrong | 6 | 5 | 0 | 0 |
| Southwest Pennsylvania | 11 | 7 | 5 | 0 |
| West Virginia | 73 | 94 | 12 | 4 |
| Southeast Ohio | 74 | 692 | 12 | 13 |
| Total March | 275 | 1,059 | 35 | 71 |
| Total Feb. | 269 | 1,010 | 32 | 67 |
| Difference | 6 | 49 | 3 | 4 |

| Fields— | Rigs | Drg. | Ttl. |
|---|---|---|---|
| Allegany | 9 | 25 | 34 |
| Bradford | 24 | 61 | 85 |
| Middle Field | 0 | 6 | 6 |
| Venango-Clarion | 2 | 21 | 23 |
| Butler-Armstrong | 13 | 30 | 43 |
| Southwest Pennsylvania | 13 | 58 | 71 |
| West Virginia | 49 | 147 | 196 |
| Southeast Ohio | 45 | 104 | 149 |
| Total March 31 | 154 | 415 | 569 |
| Total Feb. 28 | 168 | 364 | 532 |
| Difference | 14 | 51 | 37 |

## GULF COAST

(Continued from Page 35)

at 1,175 feet; No. 1 L. J. Wilson is drilling around 3,050 feet. The Hyde Production Co.'s No. 2 McGregor is drilling around 700 feet.

The Stella Oil Co.'s No. 8 McFadden at Spindletop is bailing at 900 feet. The Unity Oil Co.'s No. 85 McFadden is drilling around 720 feet. Wilson and Broach's No. 47 Higgins is drilling around 750 feet. The Baker Oil Co.'s No. 13 Trembly is drilling around 885 feet. The Gulf Production Co.'s No. 213 Gladys is drilling around 800 feet.

### Daily Average Gross Production

The daily average gross production for the week ending Saturday in the Gulf Coast pools is placed at 103,975 bbls. The estimate for the southwestern division is placed at 42,905 bbls. The estimate for each district is as follows:

| District— | Gross Bbls. |
|---|---|
| Batson | 1,530 |
| Blue Ridge | 1,420 |
| Barber Hill | 100 |
| Big Creek | 565 |
| Dayton | 45 |
| Damon Mound | 1,195 |
| Edgerly (La.) | 510 |
| Goose Creek | 8,990 |
| Humble | 4,900 |
| Hull | 30,300 |
| Jennings (La.) | 1,170 |
| Markham | 120 |
| Orange | 11,270 |
| Pierce Junction | 700 |
| Spindletop | 1,175 |
| Saratoga | 1,650 |
| Sour Lake | 4,210 |
| Vinton (La.) | 5,870 |
| West Columbia | 12,800 |
| Welsh-Anse La Butte (La.) | 95 |
| Lockport (La.) | 230 |
| South Liberty | 15,000 |
| Miscellaneous | 130 |
| Total | 103,975 |
| Southwest Division— | |
| Luling | 29,500 |
| Laredo | 4,100 |
| Somerset | 2,610 |
| Calliham | 340 |
| Rockdale-Minerva | 440 |
| Jim Hogg County | 5,700 |
| Miscellaneous (Caldwell County) | 215 |
| Total | 42,905 |
| Grand total for week | 146,880 |
| Grand total last week | 139,195 |
| Increase | 7,685 |

### Hull Pool

In the Hull Pool, the Houston Production Co.'s No. 8 Taylor is flowing 3,800 bbls. at 4,132 feet on the northwest side of the dome. The Gulf Production Co. started the week with a 4,000-bbl. well, No. 12 Baldwin, at 3,150 feet. Its No. 45 Phoenix is making 1,000 bbls. at 3,275 feet. The Republic Production Co.'s No. 104 Dolbear is good for 400 bbls. The Humble Oil & Refining Co.'s No. 10 Guidry shows salt water at 3,300 feet. The Gulf Co.'s No. 1 Stengler will pump after working over. The Republic's No. 105 Dolbear is bailing at 2,800 feet, as is the Empire Gas & Fuel Co.'s No. 16 Barngrover at 3,950 feet.

The Republic-Houston Oil Co.'s No. 110 Dolbear is drilling around 325 feet; No. 111 is a derrick; No. 106 is drilling around 2,067 feet; No. 107 at 2,425 feet; No. 108 at 1,290 feet; No. 109 at 2,300 feet; Higgins Oil & Fuel Co.'s No. 6 Taylor at 1,200 feet; No. 3 Republic is rigging up to work over. The Texas Co.'s No. 2 Hannah fee is drilling around 2,940 feet; No. 3 is a derrick. The Texas-Vacuum Oil Co.'s No. 5 Hannah is a derrick. The Yount-Lee Oil Co.'s No. 5 Stengler is drilling around 2,800 feet; No. 6 has dropped to 1,300 bbls.; No. 11 Merchant is rigging up.

The Houston Production Co.'s No. 8 Taylor is drilling around 4,140 feet; No. 9 is a derrick. The Gulf Production Co.'s No. 15 Scarborough is rigging up to deepen; No. 48 Phoenix is drilling around 2,500 feet; No. 51 is rigging up; No. 49 is drilling around 950 feet; No. 50 is rigging up; No. 20 Morris-Phillips is drilling around 3,500 feet; No. 21 is a derrick; No. 17 Hannah fee is drilling around 2,350 feet; No. 13 J. C. Baldwin fee is building derrick; No. 11 is rigging up to work over. The Humble Oil & Refining Co.'s No. 16 Guedry is waiting for rig; No. 1 Merchant completed two weeks ago for 5,000 bbls. is flowing around 2,100 bbls. showing 6 per cent water; No. 2 is drilling around 2,540 feet; No. 2 Hannah is drilling around 810 feet. The Mecom Oil Co.'s No. 8 Taylor is building derrick; Eagle Point Oil Co.'s No. 3 Wheelock is drilling around 910 feet.

### Sour Lake

Considerable interest was aroused at Sour Lake when the Yount-Lee Oil Co.'s No. 5 Lynn picked up a new deep sand in the southern portion of the field at 3,475 feet and came in flowing 325 bbls. 34.6 gravity oil. The Gulf Production Co.'s No. 27 Tarver-Hardin is drilling around 2,250 feet. MacNamara Oil Co.'s No. 12 Bashara at 1,225 feet; Humble Oil & Refining Co.'s No. 23 Hebert at 1,560 feet. J. S. Jackson's trustee's No. 1 Carpenter at 825 feet The Barclay Oil Co.'s No. 3 Rogers is shut down at 600 feet. The Thais Oil Co.'s No. 1 Jackson is bailing at 2,500 feet. The Minor Oil Co.'s No. 28 Shoestring is pumping 6 bbls. at 425 feet showing 92 per cent water. The Gilbert Oil Co.'s No. 97 Gilbert is rigging up.

At Batson the Ada Belle Oil Co.'s No. 92 Conden is pumping 10 bbls. at 540 feet. S. R. Buchanan's No 82 Milhome is bailing at 725 feet. Anderson & Munson's No. 2 Hodges is drilling around 2,425 feet. East Batson Oil Co.'s No. 10 Lone Acre at 530 feet; Acorn Oil Co.'s No. 54 Paraffine at 410 feet; No. 3 Brice is a derrick.

### Saratoga Field

In the Saratoga Field the Yount-Lee Oil Co.'s No. 1 Parrish is rigging up. The Rio Bravo Oil Co.'s No. 3 Bryant is going on the pump; No. 1 Foundation is rigging up; No. 2 is a derrick. The Gulf Production Co.'s No. 1 Wells and others is rigging up. These are located on 5 and 10-acre blocks, 1 mile north of the old production, where the Rio Bravo got a 700-bbl. well last week in No. 3 Bryan at 2,996 feet, thus opening a deep sand there. The Yount-Lee Oil Co.'s rig is an offset on the east and Gulf Production Co. is on the west side. The Rio Bravo has plenty of storage in the pool, with three empty 55,000's and 2 steel 30,000-bbl.

Blue Ridge Pool again came to the front the past week with The Texas Co.'s No. 12 Robinson, which came in from a a depth of 4,020 feet, deepened at 800 bbls. It later increased to 1,200 bbls. The Gulf Production Co.'s No. 10 Blakeley "C" is drilling around 3 100 feet; No. 8 Luscher around 2,600 feet and No. 3 Invincible Oil around 1,850 feet.

### Goose Creek

In the Goose Creek Pool, the Inca Production Co.'s No. 2 Duke is pumping 100 bbls. at 3,500 feet. Hisgen Petroleum Co. abandoned No. 2 Busch, northwest of production, at 4,600 feet. The Gulf Production Co. abandoned No. 4 Wright at 2,960 feet after working over. Same company is bailing No. 30 Beaumont, in the bay, at 2,700 feet. The Southern Exploration Co.'s No. 11 Wright is a derrick; No. 10, in last week is flowing 700 bbls. 40 per cent water at 1,850 feet. The Gulf Production Co.'s No. 17 Gaillard fee is drilling around 1,570 feet; No. 32 Stateland Oil at 2,701 feet; No. 9 Chapman-Bryan at 1,250 feet; No. 3 Paddock-Smith at 2,575 feet; No. 2 H. Busch at 3,150 feet; No. 10 C. Gaillard "A" around 2,800 feet; No. 9 Wright "A" is rigging up to deepen.

The Humble Oil & Refining Co.'s No. 1 Hog Island is drilling around 3,175 feet; No. 62 Simms-Smith is a derrick; No. 60 is blowing gas and mud at 4,200 feet; No. 61 is drilling around 3,250 feet; Gulf Coast Oil Corp.'s No. 31 Gaillard around 2,600 feet; Sun Oil Co.'s No. 2 Wright around 1,925 feet.

### Orange Pool

In the Orange Pool, the Rycade Petroleum Corp.'s No. 2-C Cow Bayou is flowing 3,000 bbls. at 4,660 feet. It was deepened from 4,200 feet. Two more old holes on the banks of the bayou will be deepened. Fifteen feet of 3-inch strainer was set in No. 2-C. The Gulf Production Co.'s No. 6 Hager-Moore is making 600 bbls. at 3,575 feet. The Edgerley Petroleum Co.'s No. 3 Carbella is pumping 45 bbls. at 4,800 feet. The Orange Petroleum Co.'s No. 8 Chesson is a 200-bbl. well at 3,560 feet and No. 9 Winifree is good for 50 bbls. at 3,175 feet. The Sinclair Oil & Gas Co.'s No. 4 Granger is pumping 75 bbls. at 3,300 feet and Atlantic Oil Producing Co.'s So. 3 Moore is bailing at 3,350 feet.

The Gulf Co. is rigging No. 10 Kis'ti-Lang, 300 feet north of production. No. 9 came in 10 days ago flowing 2,000 bbls. at 3,190 feet.

Brownie-Babbette Oil Co.'s No. 4 McLean is drilling around 4,810 feet; Humble Oil & Refining Co.'s No. 9 Chesson "B" at 4,150 feet; No. 10 at 4,650 feet; No. 21 at 5,150 feet; No. 11 Winifree is running in tubing at 4,650 feet; Mutual Oil Co.'s No. 4 Chesson is drilling around 4,300 feet; No. 7 at 4,650 feet; No. 14 is a derrick. The Sun Oil Co.'s No. 3 Brown is fishing at 4,100 feet; No. 6 Gunstream is bailing at 4,600 feet; Supreme Oil Co.'s No. 1 Jackson is drilling around 4,550 feet; Edgerly Petroleum Co.'s No. 2 Carbello is rigging up to work over; Gulf Production Co.'s No. 17 Lee Hager fee is drilling around 4,000 feet; No. 4-A Chesson is milling at 4,450 feet; No. 2 M. Granger and others are drilling around 3,950 feet; No. 1 M. Granger around 3,750 feet; No. 4 Hager-Moore bailing at 3,450 feet; No. 1 Winifree fee drilling around 3,300 feet.

### South Louisiana Pools

The Foxman Oil Co.'s No. 1 Truschell at Jennings is drilling around 1,800 feet. The Gulf Refining Co. of Louisiana's No. 35 J. C. is rigging up.

In the Edgerly Pool, the Roxana Petroleum Corp. is drilling No. 1 Hunter, and the Gulf Refining Co. is deepening an old hole on the Bright-Penn.

In the shallow sand at Piedras Pintas, Duvel County, Abercrombie & Co. is setting casing in No. 1 at 575 feet to drill into the sand at 600 feet.

On the Singer lease on the southwest side of the Palangua Dome, the Humble Oil & Refining Co. is deepening No. 5 from 1,450 feet, where a test in 90 feet of packed sand was a failure. Same company abandoned No. 1 at Loma Alta and has location 1½ miles southeast for another test.

W. O. Head has a loation for a test 4 miles east of Lockhart. It will be financed by Colorado people. Houston people have a location on the Bozarth land, 3 miles southeast of Dale and a location has been made near McMahan.

C. T. Rucker has a derrick up for No. 1 Fisher, on Trinity Bay, Chambers County. The Sun Oil Co. has started No. 3 Cade at High Island, Galveston County. The Marland Oil & Refining Co. is drilling No. 1 Lockwood, Fort Bend County, on a seismograph location. Same company has a deep test at Shepherd's Dome in Matagorda County. The Rycade Oil Corp. is deepening No. 2 Gray at Markham from 3,335 feet, where it bailed dry.

## SEABOARD REFINERS MAY TURN TO MID-CONTINENT

(Continued from Page 111)

distributors in South America—especially the West Coast.

### Tanker Charters

New fixtures in the tanker chartering market were large confined to tankers for use in carrying crude oil. They included the following:

Tanker Texas (Am.), April loading, crude oil, Tampico to New York, at 35 cents.

Tanker Beta, crude, March-April loading, Gulf Port to New York, at 34 cents.

Tanker Agwimoon (Am.), April loading, crude oil, California to New York, at 73 cents per bbl.

Tanker Agwisun (Am.), same as above.

Tanker Trimountain (Am.), crude, Gulf Port to Europe, rate not divulged.

Tanker Scottish Strath (Br.), gasoline, Gulf to France, 33s. 6d. per ton.

Tanker Bloomfield (Br.), April-May loading, gasoline, Gulf to French Atlantic, at 35s. 6d.

Tanker Superga (Br.), gasoline, March-April loading, Gulf port to French Atlantic, at 35s. 6d.

Tanker Cedarpark (Br.), gasoline, March-April loading, Philadelphia to French Atlantic at 32s. 6d.

The last three tankers are said to be for the account of a company which has recently made a large sale of gasoline to French distributors.

Estimated receipts of crude and refined oil at Atlantic ports during the past week were 642,000 bbls. daily, against 540,000 bbls. daily the preceding week. Receipts from the Gulf Coast averaged 360,000 bbls. daily, a gain of 74,000 over the week before.

The movement of oil from California showed another gain, this time averaging 121,000 bbls. daily (week ended March 25), compared with 115,000 bbls. during the week ended March 18 and 71,000 bbls. during the week ended March 11. February receipts from California averaged only 51,000 bbls. daily.

Imports also showed a substantial increase during the week ended March 25, averaging 161,000 bbls. daily, against 139,000 bbls. daily during the week ended March 18.

The renewed activity in the chartering market for tankers to carry crude between Gulf and Pacific ports and the Atlantic Seaboard is believed to foreshadow a gain in receipts during the next month or two.

The following table shows daily average receipts of crude and refined oil by water at Atlantic Coast ports from the Gulf and Pacific Coasts of the United States, and imports, for the last three weeks; also monthly record for the last 12 months (figures in barrels):

| | Week Ended— | | |
|---|---|---|---|
| | Mar. 25 | Mar. 18 | Mar. 11 |
| Gulf Coast | 360,000 | 286,000 | 156,000 |
| Pacific Coast | 121,000 | 115,000 | 71,000 |
| Imports | 161,000 | 139,000 | 106,000 |
| Total | 642,000 | 540,000 | 333,000 |

**Daily Averages by Months**

| | | | | |
|---|---|---|---|---|
| Feb., 1925 | 262,000 | 51,000 | 147,000 | 460,000 |
| January | 311,000 | 77,000 | 133,000 | 521,000 |
| Dec., 1924 | 306,000 | 83,000 | 85,000 | 474,000 |
| November | 246,000 | 80,000 | 150,000 | 476,000 |
| October | 246,000 | 120,000 | 88,000 | 454,000 |
| September | 270,000 | 104,000 | 101,000 | 475,000 |
| August | 310,000 | 127,000 | 84,000 | 521,000 |
| July | 318,000 | 85,000 | 114,000 | 517,000 |
| June | 302,000 | 133,000 | 136,000 | 571,000 |
| May | 276,000 | 122,000 | 144,000 | 542,000 |
| April | 262,000 | 143,000 | 123,000 | 528,000 |
| March | 201,000 | 137,000 | 130,000 | 468,000 |

The foregoing estimates are based on the capacity of incoming oil-laden tankers.

## OPENS TULSA OFFICE

The Zero Hour Torpedo Co., with headquarters at Casper, Wyo., has opened an office in Tulsa at 710 Cosden Building with H. A. Jenkins in charge. W. J. Cheley, president of the concern, is in Tulsa and will remain here during the next 60 days. The company has another Mid-Continent office at Eureka, Kans.

Stocks of torpedoes are carried at both Tulsa and Eureka. The great increase in business of the company necessitated the opening of the office at Tulsa. The concern is doing considerable work in different fields in Oklahoma and has been shooting wells for the Gypsy Oil Co., the Wentz interests, the Tidal-Osage Oil Co. and others.

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$6.70
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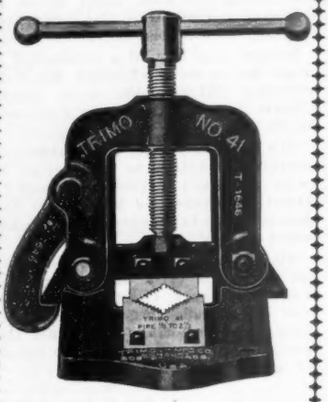
# TRIMO PIPE VISE

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2. **Convenient Weight**
3. **Strength**
4. **Rigidity**
5. **Quick Action**
6. **Better Workmanship and finish.**

**Jaws are made of tool steel, hardened and tempered and have *fine milled teeth, insuring better grip on the pipe.* The yoke, frame, and base are of guaranteed malleable iron—the screw, head and handle are of selected steel.**

**The ball ends of the handle are secured by a patent device, insuring smoothness for the hand. Made in FIVE SIZES.**

| | |
|---|---|
| **No. 400** | **⅛" to 1½"** |
| **No. 40** | **⅛" to 2"** |
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| **No. 42** | **⅛" to 3½"** |
| **No. 40B** | **⅛" to 2"** |

**No. 40B is a portable Kit Vise, made with apron; can be readily clamped to bench or post without drilling of holes.**

**ASK your hardware dealer, mill supply or plumbing supply house for TRIMO Pipe Vises and accept no other.**

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***America's Leading Wrench and Fine Tool Makers for Nearly 40 Years.***

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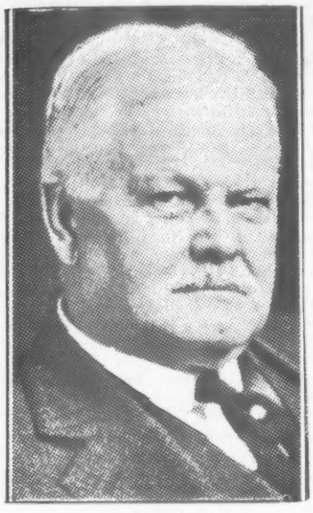
## DEATH OF COL. W. H. PECK



Col. W. H. Peck

Col. William Hudson Peck, aged 67, former oil editor of the Tulsa World, died at his home, 915 North Denver Avenue, Tulsa, Saturday, after an illness of three years. He was born at Oberlin, Ohio, March 31, 1858, and spent some years in the Central West oil fields, coming to Tulsa 15 years ago. He was for a time oil editor of the Tulsa Democrat, now the Tribune, becoming oil editor of the World in 1919.

## REQUESTS FOR CATALOG EXCEED EXPECTATIONS

While the National Supply Companies expected a large demand for its new catalog on oil field equipment, styled Catalog No. 35, the requests coming to the concern from oil and gas companies throughout the United States for copies of the "big blue book" have far exceeded these expectations. Numerous requests have been made by concerns for extra copies of the catalog, officials of these companies writing the National to the effect the book, aside from being a masterpiece in the art of publishing and appearance, contains so much valuable information and data on all kinds of oil field equipment and supplies that it is being referred to constantly not only by prospective buyers but by persons desiring information in regard to the different types of machinery, supplies and equipment used in the oil fields. The staff of field engineers established by the National Supply Companies, who are specialists on the subject of pipe line, gasoline plant and refinery equipment, has contributed a valuable addition to former catalogs and has compiled a comprehensive display of these lines in the new catalog now being distributed.


**Statement of the Ownership, Management, Etc., of**
**THE OIL AND GAS JOURNAL**
**April 1, 1925**

(This statement is published in compliance with the Act of August 24, 1912.)

Published weekly (Thursday) at Tulsa, Okla.

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News Editor: Andrew M. Rowley, Tulsa, Okla.

Stockholders holding 1 per cent or more of total amount of stock: The Patrick C. Boyle Estate, Oil City, Pa.

Known bondholders, mortgagees and other security holders, holding 1 per cent or more of the total amount of bonds, mortgages or other securities: None.

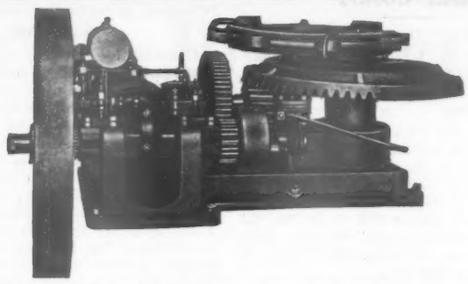
H. J. BRYAN,
Treasurer.

Sworn to and subscribed before me this 1st day of April, 1925.

MARIE H. TURNER,
Notary Public.

My commission expires October 11, 1926.





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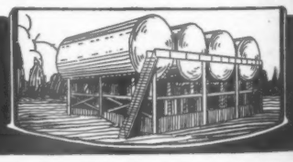

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Best materials
Expert workmanship
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—of course, but beyond this you get real shovel economy because they

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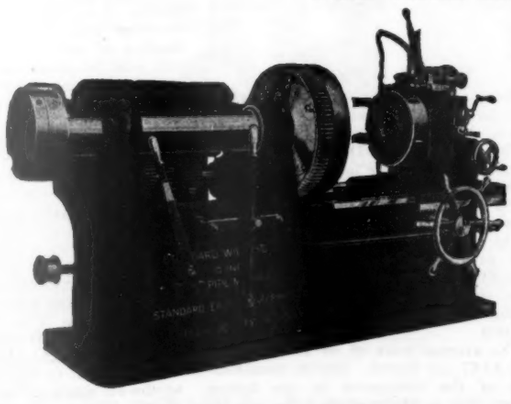
*Their Virtue lies in their performance*



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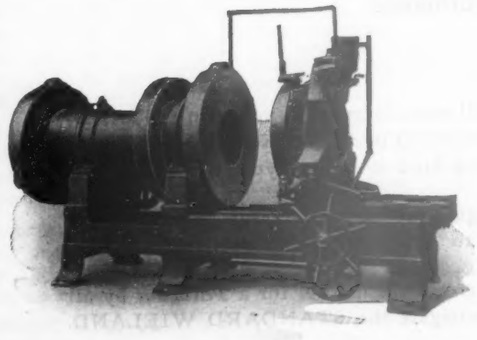

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# PRICE FLUCTUATIONS WERE EXTREME IN THE EARLY DAYS OF PETROLEUM

By L. M. Fanning

Violent price fluctuations have caused most of the oil industry's external and internal difficulties whether they be industrial, economic or political.

"The price at which petroleum was sold for the first two or three years fluctuated violently."

With these words, in describing oil prices in 1860, 1861 and 1862, Benjamin J. Crew in "A Practical Treatise on Petroleum," published in 1887 and "illustrated with seventy engravings and two plates," describes something which has always characterized prices for crude oil, a something that the industry has never been able to get away from. The author continues:

"When efforts were being made to 'float' the stock of the first oil company (the Drake Well Co.) the oil was estimated to be worth 75 cents per gallon. In 1860 the highest price obtained for it was about 45¾ cens per gallons. In 1861 it almost ceased to have any market value. Where storage tanks were available it was stored at the rate of 10 cents per barrel."

Here was the first opportunity for an "investigation." With oil reaching 75 cents per gallon, and then cascading to a quarter of a cent, there was ample ammunition for charges of "manipulation" and price fixing" and "strong arm tactics."

But oil did not stay down. In 1862 it advanced to $2.25 per barrel, and then promptly went down to 10 cents per barrel in the same year. It convalesced shortly, and in 1865 was taking nourishment at the rate of $3.95 per barrel.

**Record of Prices**

The author sets out a table showing the highest, lowest and average prices of crude oil, 1860-1884, which is of interest to all oil men and to students of petroleum prices. The table shows that practically no year elapsed without a movement of prices which could be characterized as "violent." It follows:

| Year | Highest | Lowest | Average |
|---|---|---|---|
| 1860 | $19.25 | $2.75 | $9.59 |
| 1861 | 1.00 | .10 | .49 |
| 1862 | 2.25 | .10 | 1.05 |
| 1863 | 3.95 | 2.25 | 3.15 |
| 1864 | 12.12½ | 4.00 | 8.06 |
| 1865 | 8.25 | 4.62½ | 6.59 |
| 1866 | 4.50 | 2.12½ | 3.74 |
| 1867 | 3.55 | 1.75 | 2.41 |
| 1868 | 5.12½ | 1.95 | 3.62½ |
| 1869 | 6.95 | 4.95 | 5.63¾ |
| 1870 | 4.52½ | 3.15 | 3.84 |
| 1871 | 4.82½ | 3.82½ | 4.34 |
| 1872 | 4.02½ | 3.15 | 3.64 |
| 1873 | 2.60 | 1.00 | 1.83 |
| 1874 | 1.90 | .69½ | 1.17 |
| 1875 | 1.75 | 1.03 | 1.35 |
| 1876 | 3.81 | 1.80 | 2.56½ |
| 1877 | 3.53½ | 1.80 | 2.42 |
| 1878 | 1.65¼ | .82½ | 1.19 |
| 1879 | 1.18⅛ | .67⅛ | .85⅞ |
| 1880 | 1.06¼ | .78 | .94¾ |
| 1881 | .94½ | .76⅞ | .85⅞ |
| 1882 | 1.14 | .64⅝ | .78⅞ |
| 1883 | 1.24¾ | .82¾ | 1.04¼ |
| 1884 | 1.11¼ | .63½ | 1.02⅝ |

**Variation in Production**

There are other interesting and curious facts in the light of subsequent developments, shown by the author.

The production of 1865 was 2,116,109 bbls., of a total value of $20,896,576, but 3,600,000 bbls. produced in 1866 were worth only $8,066,993. To cap the climax of what seems like an industrial absurdity to anyone but an oil man, 3,600,000 bbls. produced in 1868 were worth more than $23,000,000. To cite another figure from this book, 29,600,000 bbls. of oil, produced in 1881, were worth only $25,000,000.

The average price of oil 1860 to 1884 was $1.67 per barrel. But in consideration of the differences in the figures shown, this is like averaging the velocity of the wind in a cyclone, with that of a calm.

The book also throws curious sidelights on some of our present-day estimates of ground reserves of oil. The author catalogues our oil resources:

"During the year 1879, California produced 568,803 gallons of petroleum. In the year 1882 it mounted up to 4,903,920 gallons," and then he adds in the true style of a domestic prophet: "It is safe, however, to say that the large expectations which were formed at one time respecting the yield of California have not been realized, and that the more moderate statements contained in the report of the Geological Survey of California are correct: 'The expectations of extraordinary results that will admit of comparison with those obtained in Pennsylvania must be set aside,'"

In the light of our later knowledge, it is possible to point out that in the last six years alone California has produced as much oil as Pennsylvania has since the beginning of the industry.

**One Prophet's Mistakes**

The book contains other voices from the tombs. For example, the author quotes Charles A. Ashburner, geologist in charge of the Pennsylvania survey, member of American Philosophical Society, Philadelphia Academy of National Sciences, Engineers' Club of Philadelphia, American Institute of Mining Engineers, American Society of Naturalists, etc., who in a paper read before the American Institute of Mining Engineers thus succinctly orders the undertaker for the oil industry:

"A defined territory, a product inadequate to meet the demand of the market for the past 18 months, a growing market and rapidly diminishing stocks, an increasing number of drilling and producing wells, and a rapidly falling average daily production per well are all significant signs of a certain decline in a great industry." This eminent engineer adds: "It is a noted fact that no two oil sands, one immediately above the other, have been great producers over the same extended area,"

Mr. Ashburner then gives the industry the marker for its tombstone when he says: "It is probable that long before every barrel of oil shall have been taken out of the oil sands the cost of production per barrel will be so great that the oil man's occupation in Pennsylvania and New York will be gone." The concluding sentence of the lecture is:

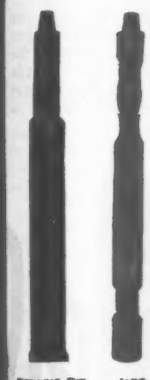
"It is hardly probable that the Japanese practice of excavating a vertical shaft 600 feet in depth to obtain a few gallons of oil a day will ever be a profitable enterprise in America."

Much has happened in a single generation in the oil business and the affairs of one man may be cited as contrasting some of the points raised in the book which has been quoted. Frank Haskell, of the Tidal Oil Co., for example, after producing oil in Pennsylvania left for the southwest; produced and is still producing oil in the Mid-Continent, and at the same time he is now supervising the flooding of fields in Pennsylvania, which will still be producing oil when all the oil men of this age have passed from the scene—passed into a state where perhaps they will know where the oil came from, how much there is, and by what sort of rigging it will be possible to stabilise the production and the price.

## WATCHORN WINS APPEAL

The United States Circuit Court of Appeals has reversed the decision of Judge Cotteral of the Federal District Court and has ruled in favor of Robert Watchorn in the case of the Roxana Petroleum Corp. against Watchorn. The Roxana Corp. brought suit to recover $250,000 paid by it to Watchorn for an option on the oil rights of his leases in the Morrison district, Pawnee County, now known as the Otoe or Watchorn Field. In the contract, Watchorn agreed to duly and properly develop the lands for gas. The Roxana Corp. did not take up its option and sued to recover its option price on the ground that Watchorn had not fulfilled his part of the contract. Judge Cotteral ruled that Watchorn should have drilled a test for gas on each and every one of the 12 pieces of land included in the contract and gave the Roxana Corp. a judgmeat.

# LARKIN
## DRILLING AND FISHING TOOLS

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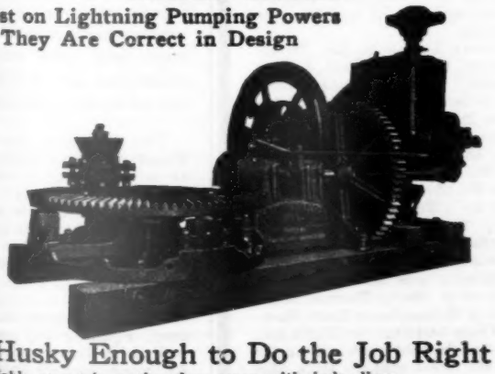

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The reliable eccentric motion does away with jerky lines.
Built in three sizes:
No. 4—Belt Drive, weight 6,500 lbs. For deep wells.
No. 2—12 H. P. engine, weight 4,600 lbs.
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Turntable gear is easily removable and having a broad face, coarse teeth and large diameter will stand up to the heaviest loads.
Shackle lines set low to the ground (13 in.) eliminate excessive strain.
Quickly installed.

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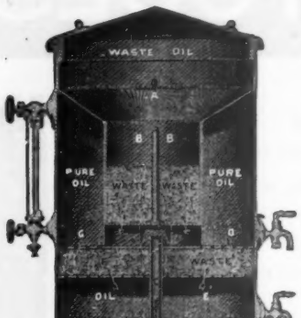


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Week after week for 17 years the Harrisonburg Ice Corp., Harrisonburg, Va., have been saving 50% to 90% of their lubricating bills thru the use of a Cross Oil Filter.

Now, although the filter is still giving good service, they ask for a duplicate.

Can there be any better evidence of the durability, efficiency and profitableness of this famous filter?

The Cross Filter receives oils that have passed thru the bearings, subjects them to a complete process of purification and discharges them the same as new.

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OR SERVICE in connection with the condensers on the stills—where cuts are made all the way up to fuel oil (the vapor temperature in condensers rising to about 650° F.)—Bristol's Recording Thermometers Class III are chosen. They record temperature up to 800° F.—and as low as 60° below zero; utilizing a patent compensator for recording the lower ranges. Operation is by the expansion of a gas. Rugged, simple and above all, accurate, Bristol's Recording Instruments were recognized from the first as standard for refinery use. The full line includes instruments for Pressure, Liquid Level, Temperature, Electricity, Motion, Speed, Humidity, etc.

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## Venezuela Drilling Increasing Rapidly; La Rosa Area Leads

By Staff Correspondent

MARACAIBO, Venezuela, March 28.—The fields in general are improving day by day. Every ship that comes from the United States brings more oil field material and men. The only field that is drawing much attention is La Rosa, although all parts of the Maracaibo Lake district are improving greatly.

The Standard Oil Co. of Venezuela is still drilling at Dabajuro, State of Falcon, and expects commercial production soon. Same company has locations for 12 wells drilling for structure tests in the Punta Leira and Quiroz districts on the east side of the lake. At Palmarejo the same company has set 15½-in. casing at 1,150 feet. It has also spudded in No. 1 in Perija, Wild Indian country near Colombian border.

The Venezuelan Gulf Oil Co. in Lake Maracaibo at La Rosa has one new well No. 5 Superior, making 3,000 bbls. of 21 Be. oil on a 7/8-inch bean. In all the company has a production from four wells, all of which are in the lake, of about 10,000 bbls. daily. Same company at Iguana, district of Perija, is shut down at 3,200 feet. At Mona, La Paz district, it is making structure tests with portable rotaries. The same company is making structure tests with portable rotaries in El Moneta, Mene Grande district. In each of these two districts this company has drilled one deep well with no commercial production.

The New England Oil Co., Ltd., has completed its No. 3 at Pauji for a production of about 300 bbls., which it is using for fuel oil.

The Lago Petroleum Co. at La Rosa, in Lake Maracaibo, has three new producers, Nos. 5, 6 and 7, each good for about 3,000 bbls. This company now has six producing wells in Lake Maracaibo and a total production of about 15,000 bbls. a day.

The Venezuelan Oil Concessions, Ltd., Dutch-Shell, at La Rosa, (on the mainland, this company has no wells in Lake Maracaibo) has two new producers, Nos. 19 and 20, each good for about 2,500 bbls. a day. The company now has 20 producing wells in this district and a total production of about 35,000 bbls. a day. Production in this district has been increased greatly by the use of screen pipe, which is being used now by all three companies. V. O. C., Ltd., No. 13 jumped from 3,000 bbls. a day to 20,000 bbls. for the first four days by the use of screen pipe. This company is running four strings of cable tools and three rotaries in this district and has 15 complete new rotaries coming.

The Caribbean Petroleum Co., Dutch-Shell, at Mene Grande, is not drilling any new wells. It is deepening several of its old wells and has a production now of about 28,000 bbls. a day.

The Venezuelan Oil Concessions, Ltd., at La Paz, has a fishing job at 3,150 feet in its No. 4. Number 5 is drilling at 700 feet. No. 6 is spudding and No. 7 is rigging up. No new production in this district. Same company is drilling on four wells at Concepcion and has locations for about 25 others. This company is building a tank and sea line for loading tankers at Punta Piedras, about 5 miles south of Maracaibo on Lake Maracaibo. It is now building two 25,000-bbl. steel tanks, and has the steel coming for two 85,000-bbl. steel tanks. It is also going to build one 1,000,000-bbl. concrete tank here, and two 1,000,000-bbl. concrete tanks at La Rosa and two 1,000,000-bbl. concrete tanks at Mene Grande.

The British Controlled Oil Fields, Ltd., at El Mene has three new producers and a total production now of about 15,000 a day.

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# ABSTRACTS OF PAPERS READ AT WICHITA MEETING OF GEOLOGISTS

Titles and abstracts of papers offered for the Wichita, Kans., meeting of the American Association of Petroleum Geologists, March 26, 27 and 28, follow:

### Kansas

1. "General Structural Conditions in Kansas and Some Type Structures," Everett Carpenter. There are three main types of producing areas in Kansas, viz., (1) anticlines, (2) Sheet sands, and (3) Shoestring sands. The paper will be confined to these three conditions.

2. "Structural Conditions in the Vicinity of the Ingeous Intrusive in Clay County, Kansas," Marvin Lee. This paper presents detailed structure map showing the type of structural folding over an area of about 40 square miles on all sides of the igneous intrusive Structure indicates that it was formed by faulting of the Mississippian rock or pre-Mississippian rocks, indicating that the source of the molten rock might have been upward along some of these fault planes.

3. "Significance of Some of the Surface Structures of Central and Western Kansas," W. H. Twenhofel. Surface structures of the Permian strata of Harvey and adjacent counties, of Cretaceous limestones of Russell and neighboring counties, and of the Smokey Hill Chalk and Fort Hayes limestone of Trego, Gove, Rooks and other counties are described and an interpretation in each case attempted. Those of the Harvey County region are referred to the solution of salt beds and the change of anhydrite to gypsum. These structures are thought to be confined to strata close to the surface. The surface structures of the Cretaceous strata are thought to be due to adjustments of these stratas to the base on which they rest and to the irregularities of deposition within the strata themselves.

### Western Kansas

4. "Type Structures of Western Kansas," C. R. Thomas. The manuscript deals with a number of theories that have been advanced regarding the original anticlines in the territory adjacent to the Russell Field with the conclusion that they have been caused by vertically acting forces and that the folds are of the "surficial" type.

5. "The Subsurface Distribution of the Comanchean Over Western Kansas," W. H. Twenhofel and W. L. Stryker. The paper presents the results of a study of many well logs of western Kansas for the light they throw on the subsurface distribution of the Comanchean strata. The Comanchean strata underlying Russell and adjacent counties appear to approximate 200 feet in thickness. The thickness seems to increase westward and southwestward, becoming 260 feet thick near Veda in Trego County, 456 feet in the Halliday well in Ford County, and 344 feet in the Garden City well in Finney County.

6. "Geology of Russell County, Kansas, Both Surface and Subsurface," M. M. Valerius. The paper deals with the general geology of the surface together with stratigraphic section of surface outcrops, treats both surface and subsurface conditions of the Russell County oil field, gives the history of the discovery well in detail together with cross sections, showing position of producing horizon with reference to surface structure, and notes present development and total production with curves based on individual wells.

7. "The Producing Sand of the Thrall-Burkett-Seeley Fields, Greenwood County, Kansas," Raymond M. Carr. The Thrall-Burkett-Seeley Oil Pools comprise the northeastern end of the Sallyards-Madison "trend." In this area there is an excellent example of the manner which producing sands may limit production by abruptly pinching out. The principal producing sand is the Bartlesville although three exceptions are noted. No production has yet been obtained from deeper horizons. Due to thinning of the Bartlesville sand eastward the usual sand contour map is nearly useless for studying the sand body of this region. Stereograms have been found to be of value in visualizing underground conditions. One stereogram of each field is used to illustrate in considerable detail the actual thinning which has limited production to the south and east of each field. A cross section is used to show correlations from one pool to the next. Two wells in the Seeley Pool have produced some oil from an upper sand.

### Wilson County

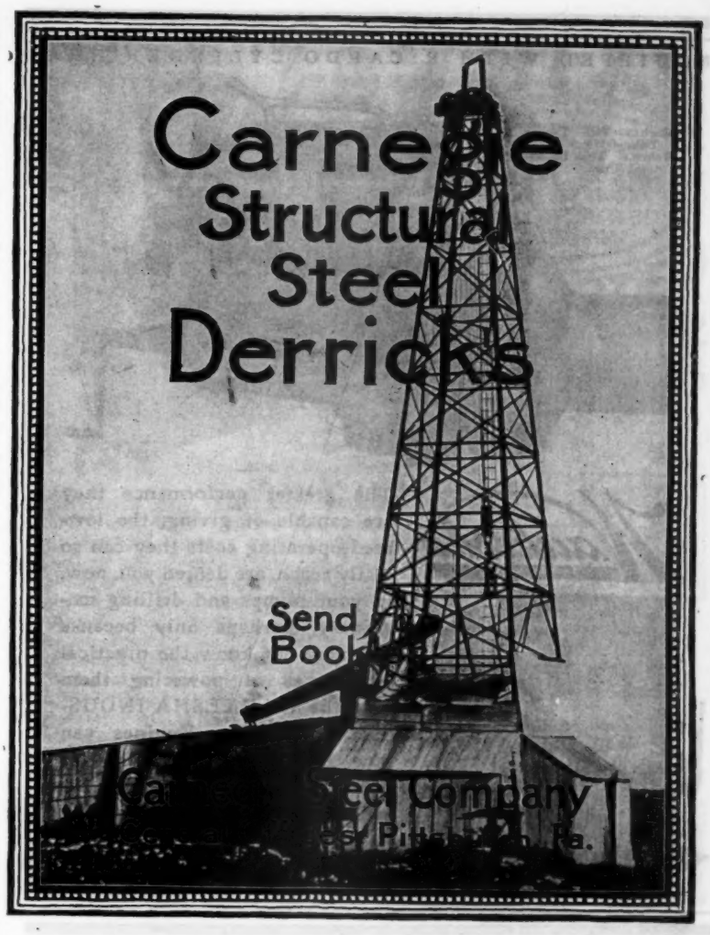
8. "The Subsurface Geology of Wilson County, Kansas," W. L. Stryker. The real geology of Wilson County and the geologic section to the base of the Pennsylvanian are briefly described. The geolgic section of the Mississippian and older strata and the surface on the Mississippian are given in detail. The structure of the Pennsylvanian is considered and the hypothesis is advanced that many of the anticlinal and domal structures of the surface Pennsylvanian strata are due to settling over irregularities on the Mississippian surface and lenses of sand in the Pennsylvanian strata. The relation of the deposition of the Pennsylvanian sediments to irregularities on the Mississippian surface is examined and the conclusion is reached that the positions of many of the land lenses in the Cherokee shales were determined by these irregularities. The structure of the pre-Pennsylvanian strata is considered.

9. "New Data on the Comanchean Strata of Central Kansas," W. H. Twenhofel and A. C. Tester. As a result of the independent work during the summer of 1924 the writers are able to present data concerning the Comanchean strata of central Kansas. The association of cone-in-cone layers with the Windom member is described as well as the apparent persistence of the cone-in-cone in a similar stratigraphic position. The writers conclude briefly (1) Cone-in-cone always occur with the Windon member and rarely at any other stratigraphic position. (2) The interval between the two marine members of the Comanchean decreases eastward, southward and westward. (3) The lithic character of the Mentor member varies greatly; the variation in the fauna is equally as great. (4) The Windon member is persistent lithologically although the fauna varies considerably. (5) Because of the persistent distribution and position of the cone-in-cone layers they may be considered of much correlative value.

10. "Rainbow Bend Field, Cowley County, Kansas," D. R. Snow and D. P. Dean. This paper deals with the history and geology of the Rainbow Bend Field, Cowley County, Kansas

### Shoestring Pools

11. "Observations and Problems Concerning 'Shoestring' Oil and Gas Pools of Eastern Kansas," John L. Rich. Within the past two years new developments in the "shoestring" sand territory of Anderson and adjoining counties have opened new "shoestring" pools and have extended others. Opportunity for detailed study of certain of these pools has made possible the determination that the "shoestring" sands occupy definite steep-walled channels cut into the probably marine blue shales of the upper part of the Cherokee formation. The configuration of these pools is beginning to suggest that they are parts of an extensive channel system. The nature and origin of this channel system—whether parts of a drainage system, or an extensive network of tidal channels—and the extent of nature of its branching are as yet unsolved problems which, nevertheless, have important economic significance in connection with the tracing of the channels. Other important problems concern the nature of the channel sands, their degree of saturation under various structural conditions, and the means by which the oil could have accumulated in such channels in volume sufficient to yield commercial oil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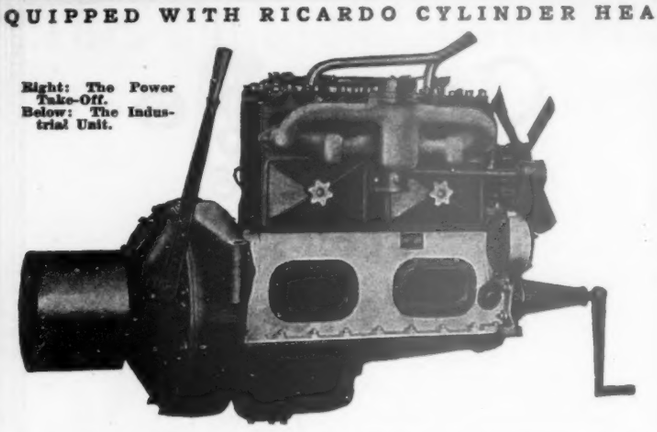

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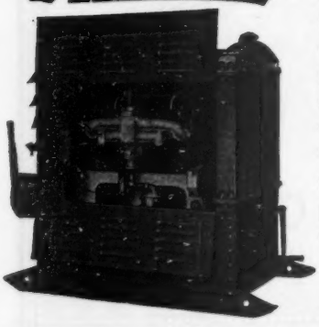

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12. "The 'Dakota' Formation of Kansas," Allen C. Tester. The writer concluded, briefly (1) Sandstone often with a true Dakota flora is present generally along a narrow belt across the State, though by no means a continuous outcrop. (2) The sandstone members in various parts of the State are not equivalent, but represent deposition at different stages. It does not seem advisable to divide the formation. (3) Few, if any, of the sandstones were deposited under true marine conditions and for the most part are of continental nature, chiefly fluvial; some may be delta or littoral deposits. (4) The time interval between the Comanchean and Dakota of Kansas was relatively short and locally the marine strata were succeeded by terrestrial deposition without apparent break. (5) Some of the "Dakota" of northern Kansas is probably the equivalent of parts of the marine Comanchean of southern Kansas. (6) With the above facts in mind the "Dakota" is not a satisfactory formation to use for structural purposes.

**Oklahoma, Texas and Adjacent States**

13. "Lower Permian of Northern Oklahoma," F. L. Aurin and G. C. Clark. This paper takes up the surface and subsurface changes in the Permian region and presents the information from both surface and subsurface standpoints. In addition the oil and gas horizons in the Permian are discussed. The results of the above studies show that there is a change from red to nonred sediments in all the formations in the lower Permian, in going west and southwest from the outcrops.

14. "The Permian Formations of Kansas, Oklahoma and Northern Texas," Charles N. Gould. It is shown that the outcrop of Blaine gypsum may be traced as a continuous line from northwestern Clark County, Kansas, across Oklahoma, and into Texas, as far as the region of San Angelo, a distance of over 600 miles. Following Beede, it is shown that the San Angelo sandstone of Texas, which is considered to be the base of the Double Mountain formation, is the same as the Duncan sandstone of Oklahoma. Using the Blaine and San Angelo-Duncan as key beds an attempt is made to correlate the other Permian formations.

15. "The Subsurface Stratigraphy of Western Oklahoma," Frank C. Greene. There are three groups of beds in western Oklahoma that merge into the red beds of central Oklahoma. The three groups are separated by two unconformities. In age, the red beds range from Kansas City (Pennsylvanian) to Cimmaron (Permian or possibly Triassic). The lowest group includes beds from the Kansas City to the Chase, the middle group includes the so-called "Big Lime," Marion and Wellington, and third and highest is the Cimmaron group. The sediments of the lowest and highest groups appear to be entirely unrelated in origin.

**Whitehorse Sandstone**

16. "Areal Extent and Stratigraphy of the Whitehorse Sandstone," R. L. Clifton. The Whitehorse sandstone is a persistent stratigraphic unit of the upper Permian red beds. Its exposures may be traced from Bluff Creek in Clark County, Kansas, southward into Oklahoma, to Stephens County; from that locality, westward, around the northern limb of the Wichita Mountains, to the Permian escarpments west of Dozier, in Collingsworth County, Texas; thence to the exposures south of the Red River, in Hall County; and thence from Hall County, southward to the exposures along the Colorado River, in Coke County, Texas.

Certain peculiar horizons within the sandstone are fossiliferous; a correlation of the sandstone exposures on the basis of paleontology is possible. The so-called Verden or channel sandstone of Oklahoma and the exposures at Dozier, Texas, of what has been called the Quartermaster formation are recognized as Whitehorse horizons. An unconformity exists at the base of the Whitehorse sandstone. This unconformity, while it is discontinuous, is important and of more than local expression.

17. "The Origin of the Faults in

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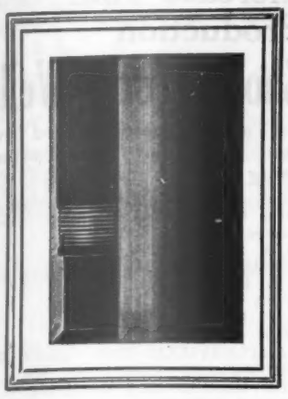

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Osage and Creek Counties, Oklahoma," Lyndon I. Foley. The westward thrust of the Ozark uplift was opposed by the Granite Ridge of Kansas causing rotational stresses in the formations lying between them. These rotational stresses caused shearing in directions approximately north 25 degrees east and north 65 degrees west, and also tensional stresses in a northeast and southwest direction and compression in a northwest and southeast direction, as shown in the experiments of Mead. The conclusions are as follows: (1) The belts of short, en echelon, parallel faults were caused by horizontal movement along shear lines striking about north 25 degrees east. (2) The noses striking in a northwest direction were caused by shearing stresses along lines about north 65 degrees west together with compression forces acting in a northwest-southeast direction. (3) The folds striking in a northeast-southwest direction were caused by compression forces described above. (4) These phenomena are the result of rotational stresses between the Ozark uplift and the granite ridge of Kansas.

**Cromwell Pool**

18. "The Cromwell Oil Pool," L. G. Keppler, G. A. Kroenlein, A. W. Lauer. The geology of the area differs in many respects from that of the old developed portion of Oklahoma lying directly to the north and east Both structural and sand conditions are geologic problems that have not been satisfactorily solved. On that account future development cannot be planned with any degree of accuracy and confidence. A surprising number of small faults characterize the surface geology. An unusually sharp break or fault in the producing horizon marks the limit of production on the east. The relation of the surface and subsurface faults presents an interesting problem. The producing horizon is very thin, spotted and unlike the ordinary sand bodies of northeastern Oklahoma, in that it is largely limestone. It is characterized by large flush production and very short life. As a whole, this is one of the most erratic areas in Oklahoma.

19. "Papoose Pool," Harry H. Nowlan.

20. "Wilcox Sand Production, Tonkawa Field," Glenn C. Clark. Evidence is available for definite proof that Mississippi lime is absent over top of structure and Wilcox sand is in contact with basal Pennsylvania shales. Similar conditions have been thought to exist at Cushing and Blackwell, Okla., and El Dorado, Kans., but conclusions are more or less theoretical.

21. "Relationship of Mountain Folding to the Oil and Gas Structures of Southern Oklahoma," Clyde M. Becker. The paper deals with the diastrophic movements, locations of axes and relations of sedimentary and igenous rocks in the Wichita and Arbuckle Mountains together with the relation of the oil and gas structures of southern Oklahoma to the major or structural features.

22. Possible Correlations of Producing Sands of the Hewitt and Graham Fields, Carter County, Oklahoma," Willis Storm. The conclusions drawn strongly indicate that the oil producing sands or producing series of the Hewitt and Graham Fields are the same and belong in the Cup Coral member of Goldston's Glenn Formation of Lower Pennsylvanian age.

23. "Additional Data on 'The Glenn Formation' at Ardmore, Okla.," James A. Waters.

**Archer County, Texas**

24. "Geology and Oil Fields of Archer County, Texas," M. E. Hubbard, W. C. Thompson. The paper will discuss the origin and accumulation of the oil as well as problems of porosity, ultimate yield, etc. of this particular district.

25. "A Notable Unconformity in the Permian of North Texas," Clifton W. Clark. A very interesting unconformity occurs in the Permian in the southeastern part of Wilbarger County, Texas. Limestone, probably belonging to the series which outcrops north of Maybell in the vicinity of Lake Kemp, appears at the surface and dips from a central core in

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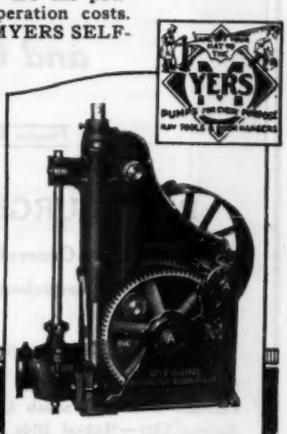

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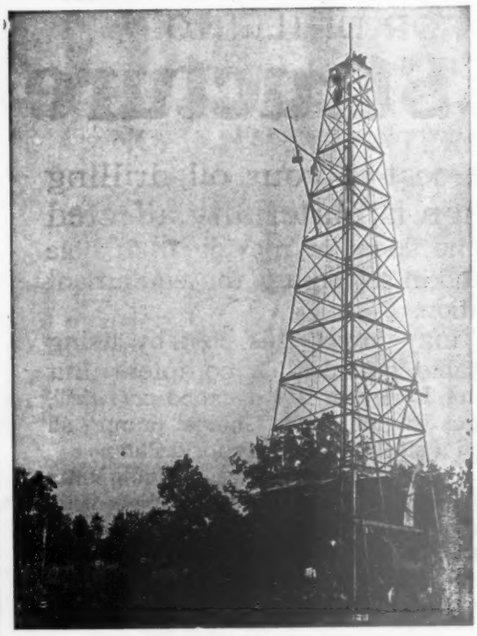

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nearly all directions at angles from 29 to 30 degrees. The entire exposure occupies an area of a little more than 100 acres, and has an axis which trends in a northwest and southeast direction. The section shown in the outcrop comprises four distinct beds of limestone separated by soft clay shales. The limestones are in places sharply folded and several faults with small horizontal throw cross the area. The overlying Permian shales and sandstones which surround the sharp fold dip in general toward the northwest and appear to be but slightly disturbed by the movement which folded the limestone series. A well is now being drilled near the apex of the fold and its progress is being watched with much interest.

26. "The Subsurface Geology of the Reagan County, Texas, Oil Field," E. H. Sellards and Leroy T. Patton. The formations are found to belong to the Permian, Triassic and Cretaceous systems. It is shown that in the majority of cases the oil occurs in an oolitic dolomite, and that in all cases it occurs in strata closely related to this dolomite. The oolitic dolomite is found to have certain definite characteristics by which it may be identified in dry holes as well as in producing wells, thus furnishing a reliable and easily identifiable key horizon. It is shown that the formations contain large amounts of anhydrite, which occur up to within short distances of the producing horizon, and these deposits of anhydrite are invariably wrongly identified by the drillers as "lime," and mapping of subsurface structure by using the top of the "lime" as shown by the drillers' logs is more or less unreliable, especially in territory where no production is found.

**Western Texas**

27. "Suggestions Concerning the Probable Subsurface Structure of the High Plains of Western Texas, as Deduced from Observations on the Surface in Trans Pecos, Texas," W. A. J. van Waterschoot van der Gracht. The author has endeavored to deduce the probable structural conditions of the Permian and older formations, which are hidden below the Quarternary and Comanchean blanket of the High Plains, from observations in Trans Pecos, Texasas, where these formations are well exposed and have been subjected to considerable diastrophism during many successive periods.

28. "Some Occurences of Radiolaria in Texas Sediments," Johan August Udden. Radiolaria are now known from three horizons in the Texas section; the Pre-Cambrian northeast of the central mineral region; the Caballos novaculite (Devonian or Mississippian) in Brewster County; the Permian (probably the top of the world) in Loving and Culberson Counties.

29. "The Luling Field," Ernest W. Brucks. The Luling Field, in Caldwell and Guadalupe Counties, is a fault structure located about 20 miles southeast of the main Balcones fault. The Wilcox formation is exposed at the surface and the producing formation is the Edwards lime of the Comanchean.

30. "Volcanic Rock in Another Producing Well Near Lytton Springs, Texas," H. P. Bybee. This territory is being played on the basis of a fault. This paper will attempt to bring out some of the possibilities and restrictions of this area based on knowledge of the situation at Thrall, Texas.

31. "The Age of the Chalk at White Cliffs, Ark.," Alva C. Ellison. The chalk exposed at White Cliffs, Ark., has on the basis of lithology been correlated with the Annona chalk of Texas. This paper aims to show that this chalk is younger than the Annona chalk, which has been called a tongue of the Austin. Microscopic fauna of the Pecan Gap of Texas, which is Taylor Marl in age. The outcroping formations between White Cliffs and Brownstone are correlated with those outcroppings between Mineral Springs and Saratoga, Ark. Correlation of these formations is also made with the wells in northeast Texas.

**Rocky Mountain Region**

32. "A Study of Some Upper Cretaceous Diastrophism and Sedimentation in Montana," A. A. Hammer and A. M. Lloyd. The presence of a considerable


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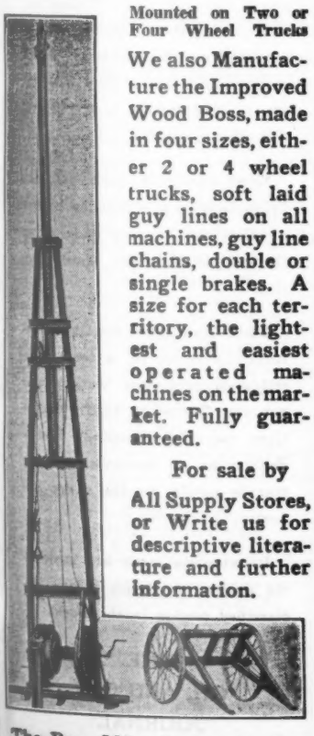

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variation in the thickness of the interval from the base of the Eagle sandstone of Montana time to the top of the Kootenai of Cloverly of Lower Cretaceous age has long been recognized over East Central Montana. This article is an attempt to show by discussion and graphical representation the regional variation of the interval previously described, an interval formerly supposed to include only the Colorado formation of Upper Cretaceous age, but now known to embrace, over the southern part of the State at least, sediments of Montana time.

33. "Correlations in Eastern Utah and Western Colorado," Glen M. Ruby. Discussion of correlations under present nomenclature together with a description of hitherto undescribed formations and their relation to the section in either state.

34. "Faulting in the Rocky Mountain Region," J. S. Irwin. This paper deals with thrust and normal faults associated with anticlines and domes and the relation of these structural features to oil and gas accumulation.

35. "Some Structural Problems in Northwestern South Dakota," Roy A. Wilson. The folds in this general region are slight with closures rarely exceeding 80 feet. There appear to be two systems of folding which are related to the regional structure. These systems are approximately at right angles to each other and have formed more pronounced dome-like structures at their intersections. Superficial structures are common to the extent that local dip readings cannot be relied upon. The relation of surface to subsurface structural features is an important problem.

36. "The Probable Origin of Some Gypseous Oil-breaking Rocks in Wyoming," W. W. Rubey. The Minnelusa sandstone (Pennsylvanian, possibly including some Mississippian and Permian) of the Black Hills region is composed chiefly of gray and red sandstone several hundred feet thick, but near Rocky Ford, in northeastern Wyoming, its upper part contains thick beds of gypsum and heavy black oil. This oil was probably formed nearby and the environment indicated by the sediments may be significant as to its origin. Field and laboratory studies of the conditions of deposition of the constituent beds of the formation near Rocky Ford—gypsum, cross-bedded sandstone, limestone breccia, and other types—leads to several alternative hypotheses. Comparisons with current interpretations of late Paleozoic sediments in Wyoming, Colorado, and elsewhere suggests (1) that deposition occurred near the coast between a shallow fluctuating sea and a low land mass, and (2) some generalization regarding the possible geography of the time.

37. "Some Features of Red Bed Bleaching in Southern Montana," Gail F. Moulton. Field work in southern Montana led to the discovery that in certain folds on the flanks of the Big Horn Mountains, the Chugwater red beds exposed along the crests of minor anticlines had been bleached to a clean white color. Oil seeps were noted in the Chugwater sandstone at the south end of these anticlines along the little Bighorn River. Later a much larger mass of oil saturated rocks was found in the Chugwater formation on the Black Dome, southeast of Bridger. These occurrences suggested that oil migrating through the sands had caused a reduction of the ferric oxide pigment to a soluble ferrous form in which solution and removal took place. Laboratory experiments showed that no appreciable reduction took place unless the temperature was raised enough to cause cracking of the oil. At such temperatures the reaction was rapid. Further investigation resulted in the discovery that hydrogen sulphide reduces ferric oxide in the cold. This fact has long been made use of by gas chemists in purifying coal gas. In the case of the bleaching near Bridger, it is clear that hydrogen sulphide is a possible agent, for in that locality a spring of water containing a large quantity of this gas was noted. Hydrogen sulphide has been shown to be a common constituent of waters associated with oil. Such waters

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would probably follow or accompany oil escaping through fissures in an anticline. Therefore, although the bleaching is probably not due to the action of the oil itself on the ferric oxide, it may be considered as a phenomenon associated with the movement of oil through the rocks. Consequently any anticlines whose crests are marked by bleached red beds should be regarded with suspicion unless possibilities of production exist at a considerable depth.

**California**

38. "The Wheeler Ridge Oil Field," George M. Cunningham. This paper treats of the location and economic importance of the field. The formations described are of Miocene and Pliocene age.

39. "The Age and Correlation of the Kreyenhagen Shale in California," G. Dallas Hanna. The Kreyenhagen shale at the type locality on Canoas Creek, Fresno County, California, is Eocene in age. The siliceous, diatomaceous shale north of Coalinga, lying above an Eocene sandstone and usually referred to the "Kreyenhagen" of late years is not the equivalent of the original deposit given that name and may be the same as what is called "cligocene" or Lower Miocene elsewhere in the State.

40. "Calcium Chloride Waters from Certain Oil Fields in Ventura County, California," N. L. Taliaferro and F. S. Hudson. In certain oil fields along the south side of Santa Clara Valley, Ventura County, California, it has been found that the chemical composition of the underground waters differs considerably from the usual Californian oil field brine, in that calcium chloride, rather than sodium chloride, is the chief constituent. Although calcium chloride waters occur in other parts of the world, they are not a common type of oil field brine and they are considered therefore to have originated under unusual conditions. The Ventura County waters occur in the Sepse red bed series, a non-marine formation probably of upper Oligocene age. These waters have no characteristics in common with the connate sea waters so frequently found in association with oil in California. The conclusion is reached that the present composition of these waters is largely due to interaction between connate non-marine water and the inclosing rocks.

**Central and Eastern United States**

41. "The Oil Fields of New York," C. A. Hartnagel and W. L. Russell. The oil fields of New York comprise some 50,000 acres. The absence of salt water from most parts of the fields and the presence of oil in synclines are noteworthy features. With no important areal expansion of the pools in 25 years the present production is greater than 15 years ago. Increase in production is due largely to "flooding" or restored pressure.

42. "New Tinsleys Bottom Oil Pool on the Jackson- Clay County Line in Tennessee," Wilbur A. Nelson. Indications are that additional wells should be found in this section.

43. "Carbon Ratios and Petroleum in Illinois," Gail F. Moulton. In the greater part of Illinois, the thick covering of glacial drift and shallow dissolution prevent the determination of structure in the underlying rocks from surface observations. The present study indicates that: 1. Equal moisture lines and isovolves are closely parallel. 2. Changes in carbon ratios in different Pennsylvanian coals of a locality are very slight, unless the coals are separated by unconformities. Unconformities are indicated by marked changes. 3. From an examination of the carbon ratios near the producing fields, a State map indicating the horizons which should be tested in any given area may be made. 4. The faulted area in southern Illinois should not be expected to produce oil from rocks underlying the Pennsylvanian. 5. There is an area of higher carbon ratios extending from Tazewell County northwest to Rock Island County, which should be investigated. 6. The predominance of gas fields in the western part of the State may be due to insufficient metamorphism.

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44. "The Geologic History of the Pa-

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nuco River Valley With a Discussion of the Dynamics Involved and Their Relation to the Origin of Oil in Mexico," Earl A. Trager. The paper describes the geological section as present in the northern producing fields of Mexico, outlines the regional geologic features, and discusses the relation between these features and the accumulation of oil in Mexico. The writer also discusses the probable source of the Mexican oil.

45. "An Eocene Fauna from the Montezuma River, Mexico," Joseph A. Cushman. A number of new species of both foraminifera and ostracods are described.

46. "Geology and Oil Resources of Trinidad, British West Indies," G. A. Waring and G. G. Carlson. Oil is produced from anticlinal structures in the southern part of the island, at depths of 300 to 2,000 feet, chiefly from Miocene beds.

47. "The Status of Americans in Petroleum Developments of Europe and Asia," John W. Finch. This paper deals with the major known petroleum regions of Asia, also the fields of southern Europe, such as Rumania and Russian Caucasia, which are geologically related to Asiatic districts east of the Caspian Sea.

**Special and Technical**

49. "The Relation of Oil Shale to Petroleum," F. M. Van Tuyl and C. O. Blackburn. It is believed by a number of geologists that oil shales are genetically related to petroleum and that they represent the initial stage in the transformation of organic material into oil. These investigators have assumed that at elevated temperatures and pressures, induced by deep burial, the kerogen would be converted into petroleum which might accumulate under favorable structural conditions to form pools of oil. In order to test this hypothesis, the writers undertook a series of flowage experiments on typical oil shales both at ordinary temperatures and at elevated temperatures. In view of the results obtained there is reason for doubting that important quantities of petroleum have been formed from oil shales except in the vicinity of igneous intrusions where the temperatures have been unusually high. It is suggested that the initial stages of transformation of organic debris may have been different in the formation of kerogen than in the formation of oil.

50. "Sources of Material from Which Petroleum May Have Been Derived," Junius Henderson. The paper dissents from the theory of the exclusive fish origin of petroleum advocated in a recent book and elsewhere, criticises statements made in support of that theory, and asserts a belief that petroleum has probably been derived from various kinds of organic material, including especially the lower forms of plants and animals.

51. "Correlation of Oil Sands by Sedimentary Analysis," M. E. Cortimore. This analysis deals with the Wilcox, Hominy, Bartlesville and Burgess sands, samples of which were secured from wells distributed over the northeastern part of the state of Oklahoma from Township 11 North to Township 25 North and from Range 1 West to Range 15 East. The analyses have to do with the sizes and shapes of the sand grains; with the micro-fossils, separating and classifying; with the kinds and amounts of minerals. The data are tabulated to show similarities in samples of a producing horizon and to contrast them with those of other sands. In view of the work done it seems that there would be little or no difficulty in differentiating these sands.

52. "Some Experimental Work Testing the Hydraulic Theory of Oil Migration and Accumulation by Means of the Downward Circulation of Water," Albert W. Weeks. The paper presents the results of some experimental work, testing the hydraulic theory of oil migration and accumulation, carried on in a plate glass box in which a sand seam, bounded on both top and bottom by a layer of clay, was arranged to give the effect of a dome on the rim of an artesian basin. Crude oil introduced at the intake of the sand seam was carried through the sand by slow, downward moving water. The position of the oil in the dome under varying conditions and experiments showing

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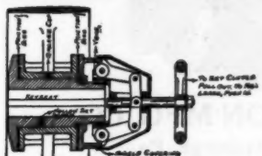

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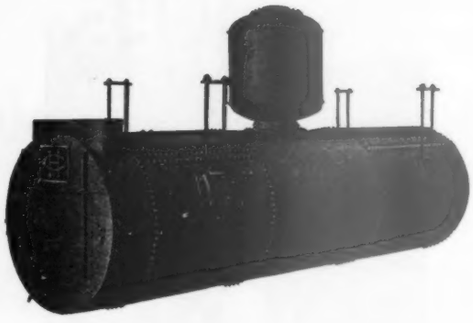

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the effect of gas under similar conditions are described.

**Oil Mining**

53. "Oil Mining," Edward Bloesch. This paper deals with the amount of oil left underground and methods of increasing recovery, deals with the geology, operations and economic results of different oil mining enterprises, including oil tunnels, of Sulphur Mountain, California, and the oil mines of Pechelbronn, Alsace, and Weitze, Germany.

54. "Results of Core Testing of Kansas Shallow Sands and Suggestions as to Possibilities of Petroleum Recovery by Mining Methods," John L. Rich. With a view to the application of mining methods to oil recovery, a number of oil properties in the shallow fields of eastern Kansas were tested with a core drill. The results were disappointing in that they showed that current estimates of oil left in the ground after exhaustion of the sands by present pumping methods are probably greatly exaggerated, because only small proportions of the sands reported as pay by the drillers are true pay sands. Poorly saturated "dry" sand and intricately laminated sand and shale were found to be very common. Though rarer than might be supposed, bodies of clean, porous, fully saturated sands do exist and offer attractive possibilities for oil mining. As to mining methods; cost studies and consideration of the labor and gas problems indicate that the French "panel" system of driving a network of drainage galleries in the oil sand is probably not practicable in this country. It appears, however, that indirect mining methods by which sand is reached from tunnels driven outside of, but close to it, combined with certain American systems of flooding or other artificial drive offer possibilities for petroleum recovery at costs which make oil mining by such methods not a matter of the distant future and high priced oil, but rather the most economical and cheapest method of oil recovery from "exhausted" sand even today and at present oil prices.

55. "A Second Study in the Age-Size Method of Constructing Composite Decline Curves," Roswell H. Johnson. This paper treats of the relation of pressure to the age-size method, gives a comparison of the age-size method to that of the shingling method where wells of different initial size are separately grouped, the decline curves given by Cutler in Bulletin 228 of the Bureau of Mines are treated by the age-size method to show the influence of age, and a new method is introduced and applied to the American oil fields.

56. "A Critical Examination of the Equal-Pound-Loss Method for Estimating Gas Reserves," Roswell H. Johnson. Theoretical and empirical evidence is given to show that the yield per pound of pressure lost, is not only not a constant, but departs so widely as to make that rule dangerous to employ in some fields. It is proposed to explain that rule by a pound-loss trend method as follows: When production of gas in the future is to be derived from a postulated pressure decline curve by the use of a factor of gas to be yielded per pound lost, different values should be used to be derived from a yield per pound-lost curve. This curve should be extrapolated graphically or by a curve fitting formula. In so doing, no attempt should be made to use the whole life, but rather the last three or more time units during which the curve shows no reversal of a marked change in trend.

57. "A Laboratory Petroleum Decline Curve," Leo C. Morgan. The sand to be used is placed in a standardized shallow wide flat-bottomed cylindrical vessel with a drainage hole at bottom. The several variables which are altered successively—each other variable remaining constant or its unavoidable change measured, are: size of grain, uniformity of grain, shape of grain, amount of cementation, thickness of sand, diameter of vessel, degree of gas pressure from above on sand, degree of oil pressure, degree of vacuum from the hole, effect of a pressure progressively exhausting by discharge as from a seltzer bottle, caliber of discharge opening, viscosity at the same tempera-

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ture, by changing the fluid from water to oil of great viscosity, viscosity by changing temperature of one grade of oil. Thsi is a preliminary report and decline curves are shown of only a few of these conditions. A comparison with oil well decline curves is made and the significance discussed.

58. "An Experimental Study of the Origin of Salt Domes," Paul D. Torrey and Charles E. Fralich. A series of experiments have been performed to show the effect of dynamic forces on a plastic bed, and the form assumed by the plastic material as it moved up through a series of beds of varying hardness. Anticlines have been formed which approximate the structure of salt domes.

59. "The Torsional Balance of the Baron von Eotvos by Dr. Desiderius Pekar," Adam Wroblewski. Regional variations of gravity are caused by centrifugal force of the earth and attraction of masses on the surface and under ground. Subtracting amount of variations caused by centrifugal force and topography from full values furnished by measurements with Eovtos graviheter, the values of subterranean influences are obtained, which permit making conclusions on structural conditions.

## FEBRUARY MOVEMENT THROUGH GALVESTON

GALVESTON, Tex., March 28.—The oil movement through the Galveston district showed a slight decrease during February compared to January, according to figures obtained from the Galveston custom house. Imports for the month totaled 549,000 bbls., as compared to 767,674 bbls. during January. Oil shipped coastwise from Texas City totaled 900,000 bbls., as against 998,000 bbls. the previous month.

Of the imports for the month Galveston received 305,000 bbls. of crude oil, as against 458,000 bbls. for January; Freeport imported 104,000 bbls. of crude oil, as against 177,674 bbls. for January. Texas City imported 140,000 bbls. of crude oil, against 132,000 bbls. for January.

Exports from Galveston and Texas City totaled 298,095 bbls. of Diesel, crude, lubricating and gasoline for February, as against 171,300 bbls., plus 4,478,000 gallons of naphtha, gas oil, Diesel oil and crude oil for January.

Nine cargoes of crude oil were cleared coastwise from Texas City in February, aggregating 900,000 bbls., as compared to 998,000 bbls. in January. The cargoes cleared, however, do not give an accurate check on coastwise movement, some vessels operating under enrollment not being obliged to clear the cargoes they lift.

## WOOD CHOSEN PRESIDENT

W. E. Wood, secretary and treasurer of the Kingwood Oil Co., was elected president of the Okmulgee District Oil & Gas Association at the annual meeting held in Okmulgee, Okla. W. B. Pine and Charles L. McMahon were elected vice presidents and James G. Lyons chairman of the finance committee. Charles I. O'Neill was reelected secretary for the fourth consecutive term. Carl J. O'Hornett of Henryetta was named as a director to succeed E. R. Black, resigned. It was voted to increase the directorate from 16 to 20 and the four additional directors will be selected among oil men residing in Okemah, Holdenville, Weleetka and Wetumka. The association is in a thriving condition and is doing a useful work.

## COASTAL STORAGE LESS

HOUSTON, Tex., March 28.—Stocks of Gulf Coast crude on March 1 totaled 12,975,351 bbls., all of which except 147,026 bbls. is in south Texas. The 147,026 bbls. are located in south Louisiana.

The above figures represent a decrease of 771,583 bbls. from the stocks on February 1. More than 550,000 bbls of the decrease were withdrawn from earthen storage.

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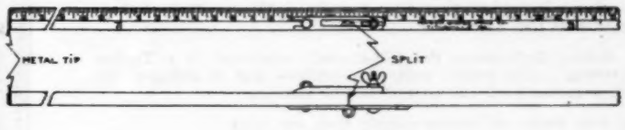

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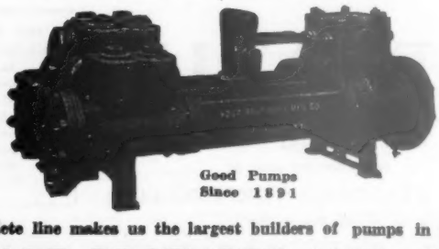
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## Motorists in 1924 Pay Eighty Millions In Gasoline Taxes

WASHINGTON, D. C., March 28.—In the 35 States and the District of Columbia imposing a tax on gasoline sales, motorists paid nearly $80,000,000 into road maintenance and construction funds during 1924, a report of the Bureau of Public Roads, announced today, shows. The tax rate ranged from 1 to 3 cents a gallon except in Arkansas, which levied a 4-cent tax. The bureau figures that the amount paid annually by the average motorist where the tax is collected is $10.30 a vehicle.

The following table shows the gasoline rates in the various States December 31, 1924, the gross receipts of the year, and the amount of revenue applied to State road work:

| State— | Tax rate per gal. Cts. | Gross receipts 1924 | Amount applied to road work |
|---|---|---|---|
| Alabama | 2 | $ 1,738,661 | $ ..... |
| Arizona | 3 | 730,838 | 365,419 |
| Arkansas | 4 | 2,768,535 | 2,268,535 |
| California (1) | 3 | 11,992,222 | 5,996,611 |
| Colorado | 2 | 1,725,957 | 819,830 |
| Connecticut (1) | 1 | 978,283 | 978,283 |
| Delaware | 2 | 304,392 | 304,392 |
| Florida | 3 | 3,658,677 | 2,575,199 |
| Georgia | 3 | 4,527,471 | 1,509,157 |
| Idaho | 2 | 545,672 | 545,672 |
| Illinois | - | ..... | ..... |
| Indiana | 2 | 4,926,372 | 4,187,856 |
| Iowa | - | ..... | ..... |
| Kansas | - | ..... | ..... |
| Kentucky | 3 | 1,660,938 | 1,660,938 |
| Louisiana | 2 | 1,335,320 | 1,335,320 |
| Maine | 1 | 522,250 | 522,250 |
| Maryland | 2 | 1,588,422 | 1,111,895 |
| Massachusetts | - | ..... | ..... |
| Michigan | - | ..... | ..... |
| Minnesota | - | ..... | ..... |
| Mississippi (1) | 3 | 1,648,748 | 787,319 |
| Missouri | - | ..... | ..... |
| Montana | 2 | 619,295 | 123,859 |
| Nebraska | - | ..... | ..... |
| Nevada | 2 | 162,596 | 60,000 |
| New Hampshire | 2 | 587,845 | 587,845 |
| New Jersey | - | ..... | ..... |
| New Mexico | 1 | 194,983 | 135,234 |
| New York | - | ..... | ..... |
| North Carolina | *3 | 4,529,048 | (2)4,520,000 |
| North Dakota | 1 | 442,969 | ..... |
| Ohio | - | ..... | ..... |
| Oklahoma | 2.5 | 2,983,501 | 1,544,600 |
| Oregon | 3 | 2,698,778 | 2,582,890 |
| Pennsylvania | 2 | 9,089,541 | ..... |
| Rhode Island | - | ..... | ..... |
| South Carolina (1) | 3 | 2,186,127 | 728,889 |
| South Dakota | 2 | 1,205,155 | 1,106,635 |
| Tennessee | *2 | 1,812,235 | 1,812,235 |
| Texas | 1 | 3,892,769 | 2,919,577 |
| Utah (1) | 2.5 | 684,361 | 682,985 |
| Vermont (1) | 1 | 230,865 | 230,865 |
| Virginia | 3 | 3,313,188 | (2)2,208,571 |
| Washington | 2 | 2,635,411 | 2,635,411 |
| West Virginia | 2 | 1,231,944 | 1,231,944 |
| Wisconsin | - | ..... | ..... |
| Wyoming | *1 | 200,319 | 200,319 |
| Dist. of Columbia | 2 | 380,792 | 380,792 |
| Total | - | $79,734,490 | $48,711,326 |

## ARTESIA, N. M., FIELD HAS TWO ACTIVE PIPE LINES

By William McGinn

ARTESIA, N. M., March 28.—Production is now being run through the Flynn-Welch & Yates pipe line to their loading rack on the Santa Fe here at the rate of 2,000 bbls. daily. This is the first oil to be moved although the field has had commercial producers for over a year.

The Gilliland line has also been connected with a rack at Dayton, 8 miles south of here and is being tested. Oil from this line will be shipped to the company's skimming plant at Roswell with the Illinois production going to the Rio Grande refinery at El Paso.

Of considerable importance during the week was the finding of a new sand in McNutt and others' No. 1 Simpson, in Section 7-18-28. This stray pay was picked up at a depth of 1,621 feet and is 40 feet in thickness. A test showed the oil to be 34 gravity, considerably lower than the rest of the field. The pay has been passed up for the present with the well drilling below 1,850 feet. The Danciger Oil & Refining Co. also found a sand between 1,743 and 1,786 feet carrying a nice showing. This well is now drilling at 1,950 feet.

The McNutt, Danciger and Picher wells will all be shot, according to reports during the coming week. Not satisfied with the shallow sand the A. R. Goodale's No. 1 California is being deepened, drilling below 1,600 feet. Drilling deeper has increased the production in the New States Oil Co.'s No. 1 Roswell. It is now being swabbed. It is the intention to pull the

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6-inch and shoot with about 150 quarts. This company is preparing to spud in their No. 2 offsetting the producer to the north.

Two wells in the southeast trend have started drilling, these being the Ohio's No. 1 in Section 1-19-28 and the W. C. Well's No. 1 in the center of Section 19-20-30. William Dooley has also made a location 2 miles northwest of the Wells test in Section 11-20-29.

A wildcat drilling campaign will soon be under way to the south and east. Geologists representing the Marland Oil Co., Roxana Petroleum Corp., Standard of California, General Petroleum Corp., Ohio Oil Co., Mid-West Refining Co., and a number of independents are now stationed in this city. Pipe line men of both the Humble and Sinclair companies are also checking the field.

## TIMOTHY J. DRISCOLL DIES AT INDIANAPOLIS

INDIANAPOLIS, Ind., March 28.—Timothy J. Driscoll, 62 years old, vice president and general manager of the Union Development Co., and director of the Union Gas Co., of Canada; Driscoll Pipeline Co., of Mexia, Texas, and the Panhandle Pipe Co., and Amarilla Gas Co., of Amarilla, Texas, died at his home here after a week's illness.

Mr. Driscoll has been in the oil business since he was 17 years old when he obtained employment in the oil fields of Pennsylvania. He helped build the first natural gas line into Pittsburgh, Pa., in 1877 and 1878, then being employed with the company which later incorporated into the Standard Oil Co.

From Pennsylvania, Mr. Driscoll went to Canada and built the line which carried the gas from Kingston to Windsor, Ontario. This line soon afterward was extended to Detroit, Mich. Mr. Driscoll then sought to obtain gas line construction projects for himself, the first for the line from Weston, W. Va., to Baltimore, Md. His next contract brought him into Indiana to build the line from Fort Wayne to Hartford City.

After coming to Indiana Mr. Driscoll carried his operations into almost every State, which has produced natural gas or oil. In 1909 he organized the United Fuel and Supply Co., of Ontario. This company then was consolidated with the Volcanic Gas Co., to make the Union Gas Co. of Canada.

He was one of the leaders of the Natural Gas Association of America.

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## CITY MAY NOT ENTER GASOLINE BUSINESS

LINCOLN, Nebr., March 28.—As a result of organized opposition by Nebraska oil men, the proposed senate bill authorizing any city to go into the coal and gasoline business was defeated in the judiciary committee by a vote of six to three. An effort may be made to call the bill up from the floor of the senate but oil men are confident the measure would be killed.

W. S. Bilby of Fairbury, president of the Independent Oil Men's Association of Nebraska, United States Senator Burkett and Lloyd Thomas of the Hastings chamber of commerce delivered bitter speeches against the provision of the bill.

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# Oklahoma-Kansas and Eastern Pipe Line Report

**OKLAHOMA-KANSAS PIPE LINE REPORT FOR JANUARY**

**Runs**

| Company— | Month | Dy. Av. |
|---|---|---|
| *Prairie Pipe Line Co. | 3,265,000 | 105,000 |
| Gulf Pipe Line Co. | 1,265,565 | 40,824 |
| Texas P. L. Co. of Okla. | 417,720 | 13,475 |
| Magnolia Petroleum Co. | 1,147,078 | 37,003 |
| Empire Pipe Line Co. | 936,200 | 30,200 |
| Cosden Pipe Line Co. | 882,025 | 28,452 |
| Sinclair Pipe Line Co. | 1,255,500 | 40,500 |
| *Other lines | 8,680,000 | 280,000 |
| Total January | 17,839,078 | 575,454 |
| Total December | 18,199,099 | 587,067 |
| Difference | 360,021 | 11,613 |

**Shipments**

| | | |
|---|---|---|
| †Prairie Pipe Line Co. | 4,441,290 | 143,267 |
| Gulf Pipe Line Co. | 1,092,124 | 35,280 |
| Texas P. L. Co. of Okla. | 562,468 | 18,144 |
| Magnolia Petroleum Co. | 1,477,787 | 47,669 |
| Empire Pipe Line Co. | 906,130 | 29,230 |
| Cosden Pipe Line Co. | 884,117 | 28,520 |
| †Sinclair Pipe Line Co. | 2,592,815 | 83,639 |
| *Other lines | 8,980,000 | 290,000 |
| Total January | 20,946,631 | 675,699 |
| Total December | 21,471,050 | 692,615 |
| Difference | 524,359 | 16,916 |

**Stocks**

| | |
|---|---|
| *Prairie Oil & Gas Co. | 26,200,000 |
| *Prairie Pipe Line Co. | 2,900,000 |
| Gulf Pipe Line Co. and Gypsy Oil Co. | 10,008,667 |
| The Texas Co. | 5,008,985 |
| Magnolia Petroleum Co. | 9,041,472 |
| Empire Pipe Line Co. | 2,828,986 |
| Cosden Pipe Line Co. | 2,656,928 |
| *Sinclair Crude Oil Purchasing Co. | 27,800,000 |
| Carter Oil Co. | 16,763,946 |
| *Other lines | 10,400,000 |
| Total January | 112,728,984 |
| Total December | 114,467,198 |
| Difference | 1,738,214 |

*Estimated. †Prairie shipments include Texas crude. Sinclair shipments include Texas and Wyoming oil.

Note—Stocks do not include approximately 9,000,000 bbls. of crude oil held in storage on private tank farms and leases.

**Runs From Wells**

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for January and February:

| | Jan., '25 | Feb., '25 |
|---|---|---|
| Nat. Transit | 158,224.95 | 152,089.01 |
| S. W. Pa. P. L. | 75,022.06 | 75,044.66 |
| Eureka P. L. | 336,785.07 | 323,694.15 |
| Buckeye P. L. (Macksburg) | 270,937.24 | 257,192.02 |
| Buckeye P. L. (Cleveland) | 11,783.31 | 11,467.59 |
| Buckeye P. L. (Lima, etc.) | 119,433.03 | 121,210.85 |
| Indiana P. L. | 9,562.51 | 10,117.61 |
| Cumberland P. L. | 316,512.22 | 290,368.12 |
| N. Y. Transit | 17,233.29 | 18,156.30 |
| Tidewater P. L. | 125,723.35 | 123,151.77 |
| Pure Oil | 184,170.99 | 169,180.29 |
| Emery P. L. | 43,635.37 | 41,770.44 |
| Indian Ref. | 80,678.03 | 67,797.16 |
| Paragon Dev. | 34,625.09 | 29,522.74 |
| Pittsburgh P. L. | 6,841.87 | 7,359.37 |
| Riggs Ref. | | 8,851.29 |
| Total | 1,761,768.28 | 1,696,963.36 |
| Daily average | 56,831.23 | 60,605.83 |

Note—Indian Refining Co. also reported other receipts of 275,260.75 bbls. Paragon Refining Co. had other receipts of 91,522.60 bbls. Paragon Development Co. had other receipts of 3,890.47 bbls. Pittsburgh Pipe Line had other receipts of 521.35 bbls.

**Petroleum Deliveries**

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for January and February:

| | Jan., '25 | Feb., '25 |
|---|---|---|
| Nat. Transit | 430,479.78 | 426,389.57 |
| S. W. Pa. P. L. | 352,482.72 | 333,592.35 |
| Eureka P. L. | 104,202.98 | 120,288.49 |
| Buckeye P. L. (Macksburg) | 108,833.21 | 95,657.49 |
| Buckeye P. L. (Cleveland) | 971.46 | 1,212.97 |
| Buckeye P. L. (Lima, etc.) | 737,449.65 | 754,903.48 |
| Indian P. L. | 1,184,796.12 | 1,068,925.14 |
| Cumberland P. L. | 151,651.28 | 142,109.90 |
| N. Y. Transit | 823,143.35 | 760,076.33 |
| Northern P. L. | 127,033.43 | 118,854.01 |
| Tidewater P. L. | 128,137.50 | 99,905.73 |
| Pure Oil | 184,963.81 | 124,856.43 |
| Emery P. L. | 42,468.57 | 38,829.91 |
| Paragon Ref. | 86,990.07 | 99,542.91 |
| Indian Ref. | 396,228.19 | 324,417.14 |
| Paragon Dev. | 19,862.92 | 37,650.36 |
| Pittsburgh P. L. | 9,893.25 | 7,261.61 |
| Total | 4,894,563.29 | 4,504,173.81 |
| Daily average | 157,889.13 | 160,863.36 |

Indian Refining Co. had other deliveries of 3,651.28 bbls.

**Gross Stocks**

The gross stocks held by various pipe lines in the oil producing section of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky, at the close of January and February were as follows:

| | Jan., '25 | Feb., '25 |
|---|---|---|
| Nat. Transit | 997,527.01 | 1,035,423.87 |
| S. W. Pa. P. L. | 671,822.11 | 686,629.94 |
| Eureka P. L. | 1,703,887.63 | 1,640,003.77 |
| Buckeye P. L. (Macksburg) | 327,725.42 | 269,748.41 |
| Buckeye P. L. (Cleveland) | 537,659.69 | 43,206.35 |
| Buckeye P. L. (Lima) | 3,556,916.92 | 3,491,690.20 |
| Indiana P. L. | 617,271.50 | 627,221.38 |
| Cumberland P. L. | 727,024.27 | 607,314.58 |
| South P. L. | 505,691.07 | 431,908.52 |
| Crescent P. L. | 58,217.64 | 58,244.28 |
| N. Y. Transit | 718,889.21 | 684,490.18 |
| North P. L. | 989,912.28 | 1,022,829.08 |
| Pure Oil | 407,274.06 | 454,163.71 |
| Emery P. L. | 8,880.37 | 11,490.76 |
| Paragon Ref. | 12,815.50 | 34,625.73 |
| Indian Ref. | 64,092.91 | 76,538.14 |
| Paragon Dev. | 13,161.62 | 8,691.88 |
| Pittsburgh P. L. | 4,506.45 | 5,210.04 |
| Riggs Ref. | | 2,683.39 |
| Total | 11,353,275.66 | 11,192,923.90 |
| Decrease | 230,403.86 | 160,351.76 |

**Grades of Oil**

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of January and February showing the gross stocks of the above fields:

| | Jan., '25 | Feb., '25 |
|---|---|---|
| Penna. | 3,892,776.91 | 3,888,928.59 |
| Lima | 1,289,019.05 | 1,268,514.45 |
| Kentucky | 1,421,861.94 | 1,442,094.26 |
| Mid-Cont. | 4,711,600.48 | 4,563,791.51 |
| Illinois | 38,017.28 | 29,595.09 |
| Total | 11,353,275.66 | 11,192,923.90 |

**Daily Average Runs**

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

| | 1922 | 1923 | 1924 | 1925 |
|---|---|---|---|---|
| January | 67,702 | 75,790 | 62,638 | 56,831 |
| February | 75,096 | 77,092 | 68,023 | 60,606 |
| March | 78,531 | 76,592 | 69,721 | |
| April | 76,462 | 75,614 | 71,058 | |
| May | 77,592 | 77,365 | 63,942 | |
| June | 76,193 | 77,593 | 63,230 | |
| July | 76,435 | 71,879 | 64,208 | |
| August | 79,387 | 76,910 | 59,942 | |
| September | 78,512 | 72,358 | 62,930 | |
| October | 77,209 | 76,266 | 64,976 | |
| November | 75,313 | 70,762 | 56,282 | |
| December | 73,351 | 69,271 | 55,814 | |

**Daily Average Shipments**

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

| | 1922 | 1923 | 1924 | 1925 |
|---|---|---|---|---|
| January | 119,792 | 171,067 | 145,518 | 157,889 |
| February | 111,362 | 164,219 | 148,732 | 160,863 |
| March | 127,753 | 185,487 | 147,098 | |
| April | 127,068 | 170,751 | 147,611 | |
| May | 127,840 | 177,102 | 134,997 | |
| June | 137,638 | 173,698 | 143,010 | |
| July | 137,872 | 168,330 | 124,187 | |
| August | 153,275 | 142,766 | 123,120 | |
| September | 158,761 | 127,266 | 127,325 | |
| October | 165,345 | 134,597 | 123,170 | |
| November | 165,677 | 131,426 | 124,400 | |
| December | 172,861 | 139,909 | 151,392 | |

**Gross Stocks**

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields including oil received from other lines, at the close of each month for the past three years:

| | 1923 | 1924 | 1925 |
|---|---|---|---|
| January | 14,040,567 | 12,907,202 | 11,353,276 |
| February | 14,028,437 | 11,844,068 | 11,192,924 |
| March | 13,873,146 | 10,906,752 | |
| April | 13,737,575 | 10,922,742 | |
| May | 13,816,622 | 11,335,309 | |
| June | 14,641,253 | 11,544,204 | |
| July | 14,645,584 | 12,062,361 | |
| August | 14,770,539 | 12,221,676 | |
| September | 14,803,444 | 12,206,236 | |
| October | 14,504,111 | 12,664,061 | |
| November | 14,157,726 | 12,268,530 | |
| December | 13,444,361 | 11,583,680 | |

**Franklin Pipe Line Co.**

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and not counted in the stocks and averages reported above:

| 1924— | Receipts | Shipments | Stocks |
|---|---|---|---|
| February | 2,151.78 | 1,926.55 | 10,073.98 |
| March | 3,398.78 | 1,716.28 | 11,756.48 |
| April | 3,311.84 | 2,066.78 | 13,001.54 |
| May | 3,036.50 | 5,338.31 | 10,699.73 |
| June | 3,188.81 | 407.01 | 13,481.13 |
| July | 3,067.74 | 3,334.29 | 13,214.58 |
| August | 2,901.36 | 6.21 | 16,109.73 |
| September | 2,794.58 | 5,776.89 | 13,126.42 |
| October | 3,342.40 | 1,880.68 | 14,588.13 |
| November | 3,700.13 | 482.89 | 12,427.56 |
| December | 3,120.34 | 2,659.13 | 12,888.77 |
| 1925— | | | |
| January | 1,730.86 | 1,681.15 | 12,938.43 |
| February | 3,702.05 | 4,564.70 | 11,075.81 |

**The Illinois Field**

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

| | |
|---|---|
| Gross stocks, March 1 | 2,369,152.97 |
| Runs from wells | 610,582.90 |
| Other receipts | 171,552.74 |
| Regular deliveries | 428,635.64 |
| Other deliveries | 305,581.30 |

The amount of Illinois oil run by the Tide Water Pipe Line Co. in February was 26,052.40 bbls. and deliveries were 26,025.01. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries from the Illinois Field as follows:

| 1924— | Runs. | Deliveries |
|---|---|---|
| February | 535,490.70 | 353,613.14 |
| March | 611,289.36 | 369,542.51 |
| April | 514,356.43 | 339,946.10 |
| May | 751,080.44 | 510,414.42 |
| June | 725,060.87 | 528,403.36 |
| July | 759,646.84 | 552,386.56 |
| August | 720,457.72 | 519,336.79 |
| September | 714,875.36 | 525,762.80 |
| October | 741,767.42 | 543,063.77 |
| November | 650,147.63 | 521,459.31 |
| December | 644,919.23 | 595,943.38 |
| 1925— | | |
| January | 695,513.43 | 572,304.77 |
| February | 636,635.26 | 514,661.53 |

The Tide Water Pipe Co., Ltd., also delivered in February 236,246.74 bbls. of Oklahoma oil. The total deliveries of all grades by the Tidewater were 421,878.13 bbls.

## AVERAGE WEEKLY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF PORTS

| Average bbls. per week— | ATLANTIC PORTS Baltimore | Boston | New York | Philadelphia | Others | Total | GULF COAST PORTS Galveston | New Orleans Baton Rouge | Port Arthur Sabine Pass | Tampa | Total | Total All Ports |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| October | 85,379 | 49,000 | 391,069 | 85,603 | 36,127 | 784,056 | ..... | ..... | ..... | ..... | ..... | 784,056 |
| November | 119,469 | 52,031 | 527,948 | 38,031 | 37,321 | 627,931 | ..... | ..... | ..... | ..... | ..... | 627,931 |
| December | 57,127 | 16,709 | 386,806 | 81,067 | 18,291 | 561,540 | ..... | 21,000 | ..... | ..... | 21,000 | 582,540 |
| January | 86,933 | 16,030 | 310,933 | 76,418 | 58,709 | 548,023 | ..... | ..... | ..... | ..... | ..... | 548,023 |

## AVERAGE WEEKLY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

| Average bbls. per week— | ATLANTIC PORTS Baltimore | Boston | New York | Philadelphia | Others | Total | GULF COAST PORTS Galveston | New Orleans Baton Rouge | Port Arthur Sabine Pass | Tampa | Total | Total All Ports |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| October | 136,826 | 67,515 | 257,418 | 90,818 | 113,127 | 665,704 | 231,903 | 268,816 | 111,097 | 29,351 | 640,967 | 1,306,671 |
| November | 198,569 | 87,600 | 477,621 | 166,416 | 255,531 | 1,187,641 | 283,831 | 380,569 | 94,269 | 19,831 | 778,500 | 1,966,141 |
| December | 165,515 | 25,515 | 269,164 | 83,418 | 246,582 | 789,194 | 220,388 | 358,806 | 76,321 | 51,499 | 707,014 | 1,496,208 |
| January | 129,843 | 112,582 | 440,776 | 60,739 | 191,709 | 936,649 | 205,051 | 398,097 | 100,321 | 28,231 | 731,710 | 1,668,359 |

## GROSS PRODUCTION IN THE UNITED STATES FOR 12 MONTHS

| | | California | Oklahoma | Texas | Kansas | Arkansas | Louisiana | Rocky Mountain | Eastern Fields | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| February: | Month | 19,341,226 | 12,336,437 | 10,238,052 | 2,211,853 | 3,302,750 | 1,504,450 | 3,996,251 | 2,984,000 | 55,716,019 |
| | Daily average | 666,939 | 421,953 | 353,036 | 72,857 | 113,887 | 51,877 | 137,791 | 102,896 | 1,921,043 |
| March: | Month | 19,913,262 | 13,336,851 | 12,044,503 | 2,206,426 | 3,882,695 | 1,701,593 | 3,827,204 | 3,250,600 | 61,163,134 |
| | Daily average | 642,365 | 430,221 | 388,532 | 71,175 | 125,247 | 54,890 | 123,460 | 104,858 | 1,973,004 |
| April | Month | 19,299,849 | 13,452,240 | 11,577,246 | 2,268,540 | 4,068,225 | 1,495,582 | 3,738,332 | 3,273,600 | 58,173,614 |
| | Daily average | 643,328 | 448,408 | 385,908 | 75,618 | 135,608 | 49,853 | 124,611 | 109,120 | 1,939,123 |
| May | Month | 19,833,576 | 14,247,697 | 11,628,295 | 2,469,765 | 4,659,117 | 1,696,701 | 3,866,010 | 3,264,000 | 61,550,261 |
| | Daily average | 639,793 | 459,603 | 374,948 | 79,347 | 150,288 | 51,507 | 124,710 | 105,042 | 1,985,493 |
| June: | Month | 18,807,999 | 14,447,390 | 11,602,350 | 2,469,300 | 4,766,443 | 1,812,580 | 3,638,634 | 3,253,600 | 60,798,306 |
| | Daily average | 626,933 | 481,580 | 386,745 | 82,313 | 158,548 | 60,429 | 121,288 | 108,453 | 2,026,279 |
| July: | Month | 19,274,755 | 15,191,860 | 11,917,137 | 2,671,052 | 4,597,969 | 1,815,966 | 3,768,398 | 3,271,600 | 62,497,737 |
| | Daily average | 621,766 | 490,060 | 384,424 | 86,195 | 148,322 | 58,580 | 121,561 | 105,761 | 2,019,637 |
| August: | Month | 19,112,998 | 16,535,356 | 11,808,876 | 2,717,398 | 4,359,241 | 1,702,525 | 3,749,375 | 3,286,000 | 63,261,769 |
| | Daily average | 616,548 | 533,076 | 380,931 | 87,658 | 140,621 | 54,920 | 120,948 | 106,000 | 2,040,702 |
| September: | Month | 18,208,233 | 16,209,030 | 11,089,492 | 2,638,900 | 4,029,535 | 1,795,575 | 3,330,007 | 3,150,000 | 60,640,772 |
| | Daily average | 616,274 | 540,301 | 369,650 | 87,963 | 134,318 | 59,853 | 111,000 | 101,936 | 2,021,359 |
| October: | Month | 18,696,559 | 16,189,893 | 10,942,005 | 2,768,455 | 3,983,696 | 1,774,707 | 3,058,268 | 3,295,000 | 60,808,583 |
| | Daily average | 603,115 | 522,255 | 353,000 | 89,305 | 128,506 | 57,249 | 98,654 | 109,516 | 1,961,567 |
| November: | Month | 17,767,064 | 15,955,620 | 10,731,264 | 2,597,460 | 3,461,050 | 1,965,921 | 3,788,110 | 3,941,000 | 58,207,489 |
| | Daily average | 592,234 | 531,854 | 357,709 | 86,582 | 115,035 | 65,531 | 92,927 | 98,033 | 1,940,248 |
| December: | Month | 18,795,126 | 16,057,138 | 11,264,916 | 2,537,442 | 3,380,511 | 1,870,876 | 3,202,888 | 3,060,850 | 59,153,749 |
| | Daily average | 606,294 | 517,135 | 363,384 | 81,853 | 109,049 | 60,351 | 74,287 | 96,402 | 1,909,155 |
| January: | Month | 18,743,288 | 15,462,800 | 12,790,195 | 2,520,858 | 3,278,484 | 1,774,072 | 3,627,676 | 3,065,993 | 61,263,365 |
| | Daily average | 604,622 | 498,800 | 444,845 | 81,318 | 105,758 | 57,228 | 84,760 | 98,903 | 1,976,233 |
| | Total 12 months | 227,893,905 | 179,376,264 | 138,629,420 | 29,968,531 | 47,759,716 | 20,810,548 | 40,691,153 | 38,236,243 | 723,365,980 |
| | Daily average | 622,660 | 490,099 | 378,769 | 81,881 | 130,491 | 56,859 | 111,178 | 104,471 | 1,976,609 |

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